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**INTRODUCTORY LECTURE TO THE TENTH ANNUAL COURSE OF INSTRUCTION IN THE CHICAGO MEDICAL COLLEGE,
OCTOBER 5TH, 1868.**

By N. S. DAVIS, M.D., Professor of Principles and Practice of Medicine in Chicago Medical College, and of Clinical Medicine in Mercy Hospital.

GENTLEMEN:—It has become my duty, in behalf of the Faculty, to extend to you the customary greeting at the commencement of this, the Tenth Annual Course of Instruction in this Institution.

The occasion, though of annual recurrence, is nevertheless one of marked interest to each one of you. Each period of human life has its pains and its pleasures; its toils, its responsibilities, and its rewards. But none of these periods is more pregnant with importance than that which is more especially devoted to a preparation for the active duties of Life, usually called the period of pupilage. It is during this period that the young man not only acquires the knowledge which is to enable him to take his place among the active workers in society, but he also forms and fixes those habits, and develops those mental activities, that determine with much certainty both the position he shall attain in his calling, and the degree of his usefulness

in society. Hence, whatever relates to your habits, your mental discipline, and your acquisition of knowledge, now, is of vital importance in its bearing upon all the future of your lives.

If you spend this time in the mere passive reception of such facts and items of knowledge as may be presented to you, without critically examining each item and measuring its relations to all others, you may close your nominal period of pupilage with a show of knowledge, but without the mental discipline to apply it accurately, or the mental activity that continually demands an increase of acquisition. Your mental growth will, consequently, stop at the threshold of your professional career; and though such career should be extended over thirty or forty years, yet at the end you would be found still working on the same scanty collection of materials that supplied you the first year, and following out the same monotonous routine of practice in which you started.

These simple truths cannot be too strongly impressed on the mind of every young man entering upon the study of medicine with the intention of engaging in the active duties of practice. The extent of the field of medical sciences to be mastered; the number and variety of the conditions influencing human life and health, and the intricate nature of the questions involved in the diagnosis and treatment of disease, all demand of the medical student who would do justice, either to his calling or his conscience, a capacious, well-stored mind, disciplined to the highest degree of activity and exactness.

Yet it requires but a casual acquaintance with the great body of practitioners in our country, to perceive that their most prominent deficiencies, and most frequent embarrassments, arise directly from the defective development of the mental qualities just named. And this, again, is easily traceable to the peculiarities of the system of medical education which has prevailed in this country since our existence as an independent nation. Theoretically, that system has its basis in a course of three years of quiet study in the office of a private preceptor, aided by a short annual review of the several branches in the medical

colleges. And if it was true, that every practitioner who receives students into his office, faithfully acted the part of a preceptor or teacher, by judiciously directing which branches should be studied first, and by daily systematic examinations and instructions of the student in those branches; and if the organization of the colleges was such that each student was required to confine his attention to the reviews and demonstrations in the branches corresponding with his period of advancement in study, there would be little fault to find with the system. For while it would make good students, on one hand, on the other it would contribute largely to keep up the habits of reading and close observation by the practitioner acting as preceptor.

Practically, however, it has long since become the custom for students to enroll their names in the office of some practitioner, and spend the period of private pupilage in the desultory reading of medical books, without an hour of instruction from their so-called preceptors once a month; while the colleges are so organized that no classification of the pupils is allowed, the new beginner and the advanced student being mixed in the same lecture-room, and subjected alike to the hearing of a didactic review of all the branches of medicine, heterogeneously, within the period of sixteen or eighteen weeks. The young man, who thirty or sixty days since left the plough, the workshop, or the schoolroom, and who does not yet know enough of the elements of medical science to tell the number of bones in his own cranium, and the student of two and three years, are placed side by side, and made to listen daily, at alternate hours, to lectures on the elements of anatomy and practical medicine, physiology and the details of practical surgery, chemistry, and obstetrics, etc., at such a rate that in the short period of four or five months they have had poured into their ears instruction in anatomy, physiology, chemistry (organic and inorganic), materia medica, histology, microscopy, general pathology, pathological anatomy, hygiene, medical jurisprudence, practical medicine, surgery, obstetrics, and clinical observations at the bedside.

When we remember that the careful reading of a creditable text-book on any three of these branches of medical science would occupy a good student more than the eighteen weeks allotted by most of the colleges for an entire lecture term, we shall realize how absurd the present system appears in actual practice. Indeed, it is doubtful whether human ingenuity could devise, by the most careful deliberation, a scheme of professional education better calculated to prevent the acquisition of extensive knowledge, thoroughness of mental discipline, or quickness and accuracy of observation; or one more directly favorable to superficial and imperfect acquirements, hasty and illogical reasoning, and the abrogation of all distinction between the elementary and the practical—the foundation and the superstructure.

So glaring were the defects in our system of medical education, and so prominent the evils resulting, both to the profession and the community, that more than thirty years since, it began to be most severely criticised by such men as Nathaniel Chapman, Daniel Drake, Samuel Jackson, Alexander H. Stevens, and many others of high standing in the profession. From 1835 to 1846, the subject not only engaged the attention of many of the most eminent men connected with the medical colleges, but elicited earnest discussion in most of the State Medical Societies then existing. These discussions resulted in the assembling of the first National Medical Convention, held in the city of New York, in May, 1846; and from which originated the American Medical Association. Since the organization of that Association, not an annual session has passed during which there was not a general admission on the part of its members from every part of the country, that our system of medical college instruction is most lamentably defective. And even in the Convention of delegates from medical colleges alone, held in Cincinnati, May, 1867, not a single member was found willing to attempt a defence of the present system.

Yet such has been the force of self-interest, and such the overpowering influence of the desire on the part of each college to swell the size of its classes and the number of its alumni,

coupled with a want of confidence in the faithful coöperation of competing colleges, that no essential changes in the system have been effected. It is true that new branches have been added to the college curriculum; a few additional professorships have been created; from two to four weeks have been added to the annual lecture terms in most of the colleges; and additional clinical facilities have been provided in many places; but the same ignoring of preliminary education; the same neglect of all classification of students or successive order of teaching; and the same repetitional, heterogeneous, intermingling of instruction on all branches of medical science and art, to all grades of students in one class, in the short space of four or five months, still exists in all but one or two of the medical colleges in our country.

Within the last few years the faculties of many of the colleges, in different parts of the country, have officially signified their readiness to adopt such specified changes as would remedy all the important defects of the present system, provided such changes can be adopted simultaneously by all, or a large majority, of the colleges in all parts of the country. But the faculties of many others remain silent, while the organs representing a few, let no opportunity pass unimproved, to ridicule whoever earnestly advocates improvements demanded alike by the interests of humanity and the honor of our noble calling. They are careful never to attempt a defence of the present defective system of education, or manfully to criticise proposed plans for improvement. But they are ever ready to sneeringly apply the epithet "*Pseudo-Reformers*," and to talk facetiously of "*Apostles of Reform*," and "*Phantoms in Black*." This small class of small men always remind us of one of the finny tribes, which, incapable of any other defence, when attacked expels from its ink-bag a mass of black fluid by which the water is rendered so turbid that its own body is hidden from the view of its assailant.

I need not remind you, gentlemen, that the members of the Faculty of this College are among the most earnest advocates of such changes in the general system of medical college in-

struction, as are almost universally admitted to be necessary, for they have demonstrated this in the organization of the College itself.

So early as 1857, while three of the present Faculty of this College held prominent chairs in the Faculty of the Rush Medical College of this city, chiefly through the active advocacy of Professor Byford and myself, a plan was devised for extending the annual college term of that institution to six or eight months, classifying the students, and arranging the order of teaching into junior and senior departments, which received the sanction of a large majority of the, then existing, faculty, and was finally prevented from practical adoption solely by the opposition of the late Professor Brainard, who was President of the College. Two years later, namely, in the spring of 1859, a very favorable opportunity occurred for the establishment of a new medical college in this city, under the auspices of the Board of Trustees of what was then called "Lind University." Professor H. A. Johnson, who had previously resigned his position in the Rush Medical College, and Professor E. Andrews, acting more or less in concert with Professor R. N. Isham and the late Dr. David Rutter, ascertaining that the said Board of Trustees were desirous of establishing a Medical Department of their University, and were willing to sanction such an organization as the interests of the profession and the community required, without regard to effete customs or the mere number of students, entered into a contract with the Board, by which they were authorized to nominate a Faculty, and adopt such plan of organization as the faculty so nominated might deem proper.

Having thus taken the initiatory steps for the organization of a new medical school, Professor Johnson, in behalf of the parties just named, communicated the fact to my colleague in the chair of Obstetrics, and to myself, together with an invitation for us to join them, and aid in the completion of the organization. Having fully satisfied ourselves that no important changes could be effected in the plan of instruction in the Rush Medical College, and regarding such changes as of far more

importance to the profession than any mere personal interests of our own, we cheerfully resigned our places and entered upon the new work. A plan of organization for the new school was speedily matured, embracing thirteen professorships; the principle of progressive study and teaching, by dividing the various branches into junior and senior groups or departments, and classifying the students accordingly; the requirement of annual examinations; the adoption of hospital clinical instruction as an essential part of the course; and the extension of the lecture term.

To demonstrate to all the profession, that those engaging in the organization of the new college were not actuated by any petty personal rivalry, or desire to establish a new school merely to compete with those previously existing for numbers of students, regardless of the great principles of education, the lecture term adopted was five calendar months, and the annual lecture fees fifty dollars cash and no credit, while at that time the Rush Medical College, in our own city, had a lecture term of only *sixteen weeks*, and an annual lecture fee of only thirty-five dollars, and our next nearest neighbor, the Medical Department of the University of Michigan, charged only an initiatory fee of ten dollars.

Having completed the plan of organization and nominated competent men to fill the several chairs, the same received the sanction of the Trustees of the University. Rooms for temporary occupancy were fitted up in what was called Lind's Block, on Market Street, and on the first Monday in October, 1859, the first course of lectures in this institution was commenced, with a class of about thirty students. With the Mercy Hospital as an ample field for daily clinical instruction, the entire course was completed with regularity and great satisfaction. At the first public commencement, on the first Monday in March, 1860, the degree of M.D. was conferred on nine regular students.

Three years subsequently, the ground was purchased, and the building in which we are now assembled was erected, and dedicated as a temple for the advancement of medical science and art.

About the same time, Mr. Sylvester Lind, after whom the University had been named, having failed, from pecuniary reverses, to endow the Theological Department, as he had originally agreed to do, the Board of Trustees procured a change of name to that of Lake Forest University. This change in the name, together with the failure of the Board to furnish the money for the new college building in accordance with the original agreement, led to the organization of a new Board of Trustees under the laws of the State in which the title to the Medical College property was vested, and the new corporation took the name of the Chicago Medical College.

From the first year of our organization to the present time, the prosperity of the College has been remarkably uniform and satisfactory. Commencing with thirty-three students and twelve graduates (including three *ad eundems*) the first year, we closed our last and ninth course with 113 students and fifty graduates (including two *ad eundem* and three honorary degrees).

In pecuniary matters our condition is equally satisfactory. Instead of a load of indebtedness taxing the pockets of every member of the Faculty annually to pay the interest; or a joint-stock concern, in which every chair is encumbered with one or more shares of the stock, the Trustees are the absolute owners of the College building and grounds, and completely secured from all encumbrances. In addition, we have accumulated an admirable museum for illustration of the various branches; a library of several hundred volumes; and a complete laboratory for instruction in elementary, organic, and practical chemistry.

Having, in the short period of nine years, secured all these results, and fully demonstrated the success and permanency of our College, the Trustees and Faculty have unanimously agreed to extend our annual lecture term to six months; to complete the classification of studies and students, by making three departments corresponding with the three years of study; to require three annual courses of lectures before graduating, with a thorough examination at the close of each; and to exact at least a moderate standard of preliminary education at the entrance.

At the same time, they have increased the facilities for clinical instruction, added a separate chair on Public Hygiene, provided special courses on Ophthalmology, Orthopædic appliances, physical and instrumental diagnosis, and Comparative Anatomy; with the most perfect arrangements for detailed instruction in practical and analytical chemistry. And at the opening of this, the tenth annual course of instruction, it is with unfeigned pleasure and gratitude that I welcome you, gentlemen, to the halls of the first American Medical College whose organization is in accordance with those principles of education everywhere acknowledged to be correct; whose system of instruction, both in regard to length of term and systematic order of studies, is commensurate with the field of medical science and the demands of the profession; and whose material appliances are complete in every part. I acknowledge a feeling of pride that I am identified with an institution whose Trustees and Faculty have risen so far above the mere considerations of pecuniary gain and petty competition for numbers of students, as to demonstrate to the whole profession of our country the practicability of establishing and maintaining medical colleges on a basis commensurate with the wants, the interests, and the honor of the profession.

And I am sure there is not one of you, who coöperate with us by submitting as students to a patient, systematic, and thorough course of professional study, who will not, in after years, feel an equal, nay! a greater pride in your Alma Mater.

Her successful example must and will be followed, sooner or later, by other colleges in every part of the country. Many of those now existing may cling to their idols, namely, jealousy of each other and an overweening desire for large classes, regardless of quality; but if so, they will some day wake up to find themselves supplanted by new ones on a more rational basis. The change may be slow. Indeed, all great improvements in human institutions are of slow growth.

The revolution may destroy the work of centuries in a day; but, like the whirlwind, it leaves only wrecks and debris in its path, which often require generations to remove and replace with improved organizations.

But, fellow-students, having indulged in this brief glance at the past history of the Chicago Medical College, and welcomed you to its halls, I must not close without a few words to you regarding the duties and responsibilities devolving upon every student of medicine. If there are any established truths in the various departments of medical science; if there is any real efficacy in the action of medicines on the human system; if their intelligent administration is capable of mitigating human suffering and prolonging human life; if the surgical art, skillfully applied, is capable of rectifying deformities, removing obstructions and tumors, staying the flow of blood, and healing wounds; in few words, if the medical profession is a necessary part of every civilized society, its members the conservators of public health and the welcome guests at every bedside of the sick, then is there a responsibility resting upon every student which he cannot appreciate too early or too clearly.

You are preparing to enter upon the practice of a profession where every step you take is in relation to the two most sacred interests of your fellow-men—namely, life and health. On the extent and accuracy of your knowledge, the quickness of your perceptions, the coolness of your judgment, and the skill of your manipulations, may depend the life of the first mother or child with whom you have to do. Medical science is constituted of such facts, principles, and materials from all other sciences, as relate to the human system, in all its varying conditions of health and disease. Medical art the application of this vast aggregation of facts, principles, and appliances, to the prevention and treatment of all the diseases, accidents, and imperfections to which the human family are liable.

The field open for cultivation by the medical student is exceedingly broad; the three years' time allotted for improvement is comparatively short; and he who expects to reap a harvest of either usefulness or honor, will find no time to loiter by the way. He cannot afford to lull his senses with the fumes of tobacco, or poison his blood and pervert his passions with alcohol. He cannot recline on the alluring sofa of sensual pleasures, nor waste time in the lecture-room listening to the facetious an-

ecdotes or vulgar stories of his pretended teachers. His work is an earnest and responsible one. And all the more so, because a large majority of those with whom he has to do, are incapable of judging whether he does them justice or not. At every step, he requires accuracy of knowledge, quickness of perception, purity of thought, correctness of deduction, and promptness of action.

My hearers, these are qualities that are neither born with us, nor furnished ready made by any institution; nor can they be purchased with any quantity of money or good wishes. They are, however, within the reach of all of you. Patient, persevering, systematic study, animated by the noble aspiration to be useful in your day and generation, and associated with a daily life of unbending virtue, will develop every one of them in their fulness. It should be the aim of every student of medicine to so qualify himself, both in the acquisition of knowledge and in the development and discipline of his mental faculties, that he can give to every patient committed to his charge, all the benefit that the science and art of medicine is capable of affording.

Gentlemen, if you will treasure up, and faithfully act, through life, on these brief and hastily-expressed hints, you may not all gather an abundance of that wealth which is measured either by gold or *greenbacks*, but you will surely gather what is far better, a consciousness of having made the world better and happier for your having lived in it, and a conscience void of offence towards God and man.

CHLORIDE OF AMMONIUM AND TINCTURE OF ACONITE IN OVARIAN NEURALGIA.—Dr. J. Waring-Curran states that this combination seems to have a magical influence in the treatment of ovarian neuralgia. He reports six cases in which various sedatives and anodynes had been tried in vain. He prescribed an eight-ounce mixture, containing two drachms of muriate of ammonia, with five-drop doses of tincture of aconite, and found that before the mixture was finished by the patient the pains had entirely ceased.—*Medical Press and Circular*, August 19, 1868.

ARTICLE XLV.

NITRATE OF SILVER IN THE TREATMENT OF
UTERINE POLYPI.

By M. M. EATON, M.D., Peoria, Ill., Membre Adhérent du Congress Médical International de Paris.

Mrs. D., aged 46 years, living 25 miles in the country, consulted me in June, 1866, regarding a uterine hemorrhage, which had annoyed her for over two years, almost constantly.

Upon examination, I found her of a nervous temperament, anæmic, emaciated. By digital examination, I found two polypi, of the size of a filbert, external to the uterus, and attached by a long pedicle to the margin of the os uteri. I explained the case to my patient, and recommended their removal by torsion. She consented, but desired that I should come to her home to remove them, and promised to write in about two weeks what day I should come. I gave her a tonic of bark and iron, and heard no more of the case for about a year, when she again consulted me, June 25th, 1867. She stated, that soon after her visit to me last year, she had discharged the two small tumors per vaginam, and that she had been much improved in general health, and that the hemorrhage had ceased for two or three months, and she had not sent for me for these reasons; but that now she was troubled with the hemorrhage as badly as ever, and had been for eight or nine months; and, as she was getting worse, she desired something should be done. I requested her husband to place her in a boarding-house, and let her remain a while in the city, which he did. She was much exhausted with her ride in the car, and I delayed a vaginal examination till the next day.

June 26th.—On making a digital examination, I could detect no tumors, and nothing abnormal, except an enlargement of the womb, and considerable hemorrhage, mixed with pus of an unhealthy character. On attempting to examine the uterus with a uterine sound, there was such an alarming hemorrhage

as to cause me to desist before ascertaining anything, except that the canal seemed to be obstructed. I immediately introduced a sponge-tent, to serve as a tampon and dilate the neck of the uterus (which, I should have stated, was nearly closed). This arrested the hemorrhage, but caused much pain. I gave anodynes, and introduced a larger tent, and so on, for four days, when, on passing my finger into the neck of the womb, I detected the whole surface thickly studded with polypi, from the size of a grain of wheat to that of a kernel of corn, and three or four about the size of a hickory-nut, situated high up.

The hemorrhage was free from the examination, and I concluded I would apply the solid nitrate of silver, and again introduce the sponge-tent, which acted well as a tampon. I accordingly did so, cauterizing all the tumors freely, through a duck-billed speculum, endeavoring to touch the pedicles of all I could.

The next day removed the sponge, and several small polypi (glandular variety) were discharged. I again applied the silver, and left the womb open. On the fourth day of the use of the caustic the hemorrhage had almost ceased, and I found that the tumors in the neck had all been detached and discharged, but there was considerable discharge of offensive matter. I syringed the uterus with tepid water, in which there was a small amount of liq. chlo. sodæ, and applied the silver to those suppurating spots where the pedicles had been attached, which, by the way, constituted nearly the whole internal surface of the neck; keeping her under the influence of anodynes most of the time, and giving tonics, with beef-tea and soup.

Continued this treatment ten days, when she commenced to flow immoderately, and I made another digital examination, and found two tumors in the cavity of the womb, apparently about the size of an orange. I now gave a decoction of ergot, which caused uterine contractions and some slight descent of the tumors. My patient's strength giving way, I feared to delay matters, and applied caustic to the tumors as freely as possible. This, with the ergot, arrested most of the hemorrhage, and I contented myself with giving tonics, anodynes, and nourish-

ment, and applying the silver every two or three days, for nearly two weeks, when, considerable pain coming on, I made an examination, and found I could brake them down with my finger; which I did, using forceps two or three times, to assist, when I was enabled to get the tumors entirely away, leaving the uterus entirely empty, but considerably enlarged.

I again cauterized the seat of the attachment of the pedicles, which were about $\frac{1}{2}$ inch in diameter, and gave decoction of ergot. The uterus contracted kindly, and patient expressed herself as feeling greatly relieved. August 10th, three days after, found the uterus contracted, but considerable discharge of tolerably healthy pus. Gave the phos. elix. bark and iron, in 3 doses, four times a day, and recommended bathing with tepid water and open-air exercise in a carriage for a short distance each day.

September 3d.—Case has progressed favorably: no hemorrhage or matter for several days; health improving; appetite good. Allowed her to return home.

July 9th, 1868.—Saw Mrs. D. Is now doing her own work; has had no hemorrhage; matter ceased, excepting a leucorrhœal discharge sometimes. Made an examination, to satisfy myself of the condition of affairs, and found everything normal except a slight prolapse of the uterus. Recommended the wearing of an abdominal supporter, which will probably rectify the slight misplacement. So far as the tumors are concerned, she must be considered cured; and she says her general health is as good as she could expect, as she has always been weakly. She has gained very much in flesh since last year, and has quite good color.

I made a note of this case from the comparative simplicity of the treatment, it not requiring many instruments or much skill, hoping that physicians in small places will take hold of these cases resolutely, instead of giving a palliating and a dubious prognosis, many times making no examination of the uterus, but simply taking a patient's word for the state of affairs. I might occupy pages in telling amusing anecdotes of the mistakes ladies have made respecting their own cases, which have

occurred in my limited experience, but this is foreign to my subject.

My principal reason for employing the nitrate of silver was to prevent hemorrhage, which I feared would prove fatal if I used torsion, as I have usually done in small polypi (I have successfully operated on two cases the last month, using torsion for removing a single polypus in each case), and also the favorable result in a case I reported on page 1 of this volume, in the destruction of a large watery tumor or hydatid, which had caused retroversion and inability to use one leg for two years.

Besides, Dr. Montgomery, in his paper published of "Uterine Tumors," says "small polypi may be conveniently destroyed by caustic."

Prof. Byford also states, on page 370 of his work on "Diseases of Women," that "Dr. Simpson, of Edinburgh, has at least in one instance effected the destruction of a uterine tumor by cauterizing its interior with potassa fusa."

I simply give this little experience with "argenteum nitratis," thinking it to be more convenient and less dangerous than potassa fusa, and perhaps, in cases like the one just named, more applicable than either torsion or excision; or removal by ligature or the *écraseur*; or even by the new method of Prof. Byford, of Chicago, "by introducing a dossil of cotton or lint through a canula into the substance of the tumor; the cotton to remain and produce suppurative action, and be removed by means of a thread tied to it before its introduction." His method, however, may be useful in some cases, especially where the tumor is solitary.

THE PHILADELPHIA MEDICAL REGISTER AND DIRECTORY.—We take pleasure in announcing the appearance of this useful little volume, edited by Dr. John H. Packard, and which has been recently issued by Collins, Printer, 705 Jayne Street. It furnishes much useful information regarding the various Medical Associations, Medical Schools, and kindred Institutions; Hospitals, Dispensaries, Charitable Institutions, and other matters, and a Directory of the Physicians of Philadelphia, with their office hours.—*Medical News and Library*, October, 1868.

ARTICLE XLVI.

THE OXYGEN MIXTURE, A NEW ANÆSTHETIC COMBINATION.

By E. ANDREWS, M.D., Prof. of Principles and Practice of Surgery,
Chicago Medical College.

Every surgeon who has seen the prompt and pleasant anæsthetic action of the nitrous oxide gas, so much used by dentists, has wished that in some way it might be made available in general surgery. The patient usually goes under the influence in 30 or 40 seconds, and wakes with equal promptness, without vomiting or other unpleasant symptoms, all of which is in striking contrast with the slowness, the nausea, and the discomforts of chloroform and ether. There have been, however, great obstacles to the use of the gas, owing to its evanescent action. The oxygen contained in it is in a state of chemical combination, so that it is not available for oxygenation of the blood; hence if any attempt is made to continue its action, the patient becomes purple in the face, showing all the signs of asphyxia; subsultus tendinum then supervenes, and shortly after he almost ceases to breathe, and, if allowed nothing but pure nitrous oxide, would doubtless die in a few minutes.

I have for some time been experimenting, to see whether by the addition of free oxygen to the nitrous oxide, a mixture would not be obtained, by which a patient might be anæsthetized for an indefinite period without danger of asphyxia, and thus render gas available for the most prolonged operations of surgery. These experiments are not yet finished, but they have advanced far enough to show that the preparation, which I have named the Oxygen Mixture, is certainly available for a large part of our operations, and that for pleasantness, and probable safety, it is infinitely superior to chloroform, ether, or unmixed nitrous oxide. The following facts and experiments show the present state of our knowledge on the subject:—

In the first place, pure nitrous oxide, when given for brief operations, appears to be the safest anæsthetic known. Chlo-

reform, in American and European hospitals, kills one out of about every 3600 patients who take it; but the Colton Dental Association, a company with branches in all our principal cities, established for the sole purpose of extracting teeth, has on its books over sixty thousand cases of anæsthesia by nitrous oxide, without a single death caused by the anæsthetic.

Now, it cannot be supposed that the addition of a moderate amount of free oxygen, in mechanical mixture, to nitrous oxide can produce any new danger; on the contrary, by removing all possibility of asphyxia, it must be eminently an element of safety.

To test this question, the following experiments were performed:—

EXP. 1. A large rat was placed in a glass jar on a perforated floor, beneath which was a stratum of lime-water to absorb the carbonic acid produced by its breathing. To make more sure of this result, a jet of lime-water spray was thrown into the jar at frequent intervals during the experiment. I then turned on a small stream of pure nitrous oxide gas, which, being fifty per cent. heavier than atmospheric air, settled to the bottom, and expelled the atmospheric air by displacement. In two minutes the animal fell over upon its side, breathing slowly with deep-labored inspirations. The respirations continued to become slower, until, at the end of ten minutes, they ceased entirely, and life was found to be extinct. The death was doubtless from asphyxia.

EXP. 2. Another rat was placed in the jar under the same conditions, and exposed to an oxygen mixture consisting of about one-fourth of free oxygen to three-fourths of nitrous oxide. In two and a half minutes he was so completely anæsthetized that he could not be made to respond to pinching or pushing. There was no panting, or laboring for breath, as when pure nitrous oxide was used, but the respiration was rather slow, and very gentle. He was kept in the mixture half an hour, and then removed, still perfectly anæsthetized. In five minutes he began efforts at walking, and in ten seemed to be perfectly restored to his natural condition.

EXP. 3. A rat was placed in the jar and given the oxygen mixture, containing 25 per cent. pure oxygen. This being more than is contained in the atmosphere, diluted the nitrous oxide too much, which, together with the fact that the animal was less susceptible than the former, prevented full anæsthesia. He fell into a sort of intoxicated condition, without appearing to be fully unconscious, and continued thus throughout the experiment. At the end of 30 minutes the gas was shut off, and the animal shortly recovered his sobriety.

EXP. 4. The same animal was again exposed to the oxygen mixture for half an hour, with precisely the same results as before.

EXP. 5. To test the relative safety of the oxygen mixture as compared with ether, my friend Dr. Sherman took the same rat, after his recovery from experiment No. 4, and dropped into the jar a little sulphuric ether. In a short time he was unconscious, and in two minutes was dead.

EXP. 6. A lady had an ankylosed knee, to which I wished to restore motion by forcible flexion. Having a dread of ether and chloroform, she inhaled the oxygen mixture in the proportion of one-third free oxygen to two-thirds nitrous oxide. In forty seconds she was perfectly anæsthetized, without any blueness of the countenance, or laboring for breath. There was a little pallor about the lips. I broke up the adhesions of the joint by flexing and extending it forcibly. She probably inhaled the gas about two minutes, felt no pain, and awaked without nausea.

EXP. 7. A young woman took in my presence the mixture as prepared by Dr. Rogers, dentist, for the extraction of a tooth. There was, as before, a slight pallor of the prolabia, but no asphyxiated purpling of the face. The tooth was extracted without pain, and the patient awoke without nausea.

EXP. 8. A woman, aged 42, had ankylosis of the right hip, with contraction of the flexors of both knees, fixing those joints at a right angle. I desired to cut all the hamstring tendons of both limbs, and to break up by force the adhesions of the ankylosed hip. The gas was given from a 30-gallon elastic bag,

with an imperfect inhaler. The mixture contained one-third free oxygen. Owing to the imperfection of the inhaler, it was found impossible to prevent the patient getting considerable atmospheric air with the gas, so that the anæsthesia was less perfect, and slower than in the former instance. After inhaling it for nine minutes, she became unconscious, and I severed all the hamstrings. I then endeavored to break the adhesions of the head of the femur, but found they were too firm, and I desisted. The operations lasted about three minutes, when she was allowed to recover, which she did without nausea, though she had a meal in the stomach. Twice during the inhalation there was a sort of pallor of the face, with very faint duskiness, which induced me to suspend the administration of the gas a few respirations.

EXP. 9. Mrs. R. had ingrowing, painful nails on both feet. Ten months ago she took ether for the extraction of one of them. She was of a very nervous temperament, was slow in coming under the influence of the ether, and after partially awaking remained delirious, and distressed a considerable time. Three months afterwards she took pure nitrous oxide for the extraction of a tooth. She was anæsthetized in about one minute, and felt no pain, but the countenance was blue with asphyxia, and she was delirious a good while after waking. She felt uncomfortable for several days. Six months afterwards she was again anæsthetized by Dr. Reber, a dentist, who had prepared the oxygen mixture at the suggestion of Dr. Sherman. The gas contained one-third free oxygen. She was anæsthetized in one and three-quarter minutes, and in that condition Dr. Sherman split the offending toe-nail and tore out the proper half of it without causing any pain. She inhaled the gas for three minutes in all. On awaking, she was as usual delirious, which state, however, continued only fifteen minutes, a much shorter time than after ether or pure nitrous oxide. There was no blueness nor pallor of the lips during inhalation, and on her waking she was much more comfortable than after anæsthesia with the other articles.

Dr. Reber has given the oxygen mixture to several patients

for the extraction of teeth, and states that it uniformly acts more agreeably than unmixed nitrous oxide.

Dr. Rogers, a dentist of this city, states that he has used a mixture containing one-third free oxygen for several years, and that in his opinion it is far pleasanter than unmixed nitrous oxide.

Some months ago some such mixture was proposed in England, but was overthrown, I think, by the influence of Dr. Richardson, who argued, on theoretical grounds merely, that it would not be successful, nor safe. I cannot learn that it was ever actually tried in Europe.

Prof. Watt, of the Dental College in Cincinnati, has been experimenting, I understand, on what involves partly the same principle. I am informed that he gives alternately inspirations of nitrous oxide and atmospheric air, and thus both avoids the asphyxia, and is able to continue the inhalation a long time. I have written to him inquiring about his results, but have received no answer.

The above experiments are by no means sufficient to settle the value of the oxygen mixture, but they give strong reason to think that it will prove the safest, and by far the pleasantest, anæsthetic known. As to its safety, it is highly significant, that a rat which had been twice immersed in the mixture for half an hour without injury, was killed in two minutes by ether; and yet ether is far safer than chloroform.

It is my impression that the best proportion of oxygen will be found to be one-fifth by volume, which is the same as in the atmospheric air. There are some points requiring care in the management, in order to insure success. As the oxygen dilutes the nitrous oxide, it is necessary to be very careful to exclude all atmospheric air, or else the anæsthesia will be imperfect. The inhaler must be taken into the mouth, the lips very carefully closed around it, and the nares compressed by the person administering the anæsthetic. For the same reason, great care should be taken to secure purity of the gases, otherwise the mixture will be too weak to control some patients. I have found, by introducing phosphorus into a bell glass of what was

supposed to be very pure nitrous oxide, that it contained considerable free oxygen, which doubtless was from included atmospheric air; and therefore four times the bulk of free, inert nitrogen must have been present also, to weaken the power of the article.

The oxygen is best prepared by taking pure chlorate of potash mixed with a little black oxide of manganese, and placing them in a copper retort and applying heat. The gas should pass through four washing-bottles, just as the nitrous oxide does. The same bottles will answer. As the nitrous oxide is fifty per cent. heavier than oxygen, it is better to pass it into the gasometer first. The oxygen coming afterwards, passes up through it, and hastens the mixing. It is better to let them stand a day or two, if possible, before using, to complete the mixture, but this is not essential.

Dr. Evans, the well-known American dentist in Paris, asserts that the ordinary nitrous oxide is very far from pure, even when well made. He states that he has been in the habit of purifying his gas by mechanically condensing it to a liquid under high pressure. This liquid, being absolutely pure nitrous oxide, is then allowed to reassume the gaseous form in a bag, or a gasometer. He finds that gas thus purified, only requires about half the usual quantity to anæsthetize a patient.

It seems probable, therefore, that the oxygen mixture will enable us to anæsthetize a patient for the longest as well as for the shortest surgical operations, and that it is safer and pleasanter than any anæsthetic known. There are, however, some inconveniences about it, on account of its great bulk. For office use, and also in hospitals, this is no objection, as it can be kept in a gasometer; but for outside patients it can only be carried in a large rubber bag. In city practice, among the higher classes, however, this is no obstacle, as the bag can always be taken in a carriage, without attracting observation.

I shall continue my experiments, and report the results at a future time.

ARTICLE XLVII.

CASE OF CONVULSIONS FROM ORGANIC DISEASE
OF THE BRAIN.

By S. T. ODELL, M.D., St. Louis, Kansas.

Although the following case, which occurred in my practice at Atwood, Ind., loses much of the interest which it would otherwise possess from the fact that it passed from under observation prior to its termination, yet it is reported, with the belief that it will be of some slight value as a contribution to the literature of organic disease of the brain.

December 29th, 1867, I was called to see Jerry L., aged 35, farm laborer, unmarried. Weight about 160 pounds; muscular system well developed. I obtained from friends present the following history of his case up to the time I was called:—

He was struck in right eye by a snow-ball in the winter of 1860, and was confined to his bed two days in consequence. Those now with him were not present at that time, and are unable to state the character of his sickness then, and he cannot himself remember anything more about it than that he was struck, and afterwards *awaked* with a very much swollen eye, and that after the swelling subsided he had lost the use of his right eye.

From the date of his getting up from this injury he was able, as before, to attend to all his duties as general farm laborer, and was in the enjoyment of robust health up to December 1st, 1867. On this day, while engaged in the light work of feeding cattle in the farm-yard, he suddenly became conscious of the fact that his sight was failing him, and although he made all possible haste to the house, so rapidly did loss of sight supervene, that it was with difficulty that he discovered his way. On reaching the house he laid down, and in less than two hours from the time of his leaving the farm-yard his left, and hitherto useful, eye was as useless for sight as had been the other for years.

Simultaneously with this loss of vision came on a severe

shaking fit, resembling somewhat the rigors of intermittent fever. He felt, however, no chilliness during the course of the convulsive movements. After several minutes this shaking subsided, leaving him with a heavy headache for about two hours, when, to use his own expression, he "felt all right—good as ever—only couldn't see." At intervals ranging from one to twenty-four hours he had returns of these convulsive movements, each recurring paroxysm being more severe and protracted. At times they affected most the muscles of one side of the body, at other times the opposite side, and again they would severely shake the entire body. The statement that these convulsions at times affected but one side of the body is made on the strength of the positive and repeated assertions of his friends, for at no time during my personal observation of the case did it occur.

At 3 o'clock P.M., December 29th, he was attacked with convulsions more violently than usual, and, as they continued with but momentary respite until he seemed nearly worn out, at dark I was sent for, and arrived about 8 o'clock P.M. When I arrived the patient was lying on a bed and shaking so violently as to agitate the bedstead, and even occasionally to jar the entire house.

The attacks varied from ten seconds to two minutes in duration, with an interval between them of from thirty to sixty seconds. Patient perfectly conscious both during the convulsions and intervals. Pulse, as counted in the interval, 70 per minute. Tongue clean, of normal appearance, and protruded without hesitation or difficulty. Taste normal. Hearing perfect in the left ear, but in the right much impaired; on inquiry, it was ascertained that this fact had not been noticed prior to this evening. I regret that want of appliances, as well as a want of skill in their use, to which I must confess, prevented my making an ophthalmoscopic examination of the eyes at this, or any other time during the progress of the case. The right eye, which was injured by the snow-ball seven years ago, was normal in external appearance; pupil, however, contracted to the size of an ordinary pin-head. The pupil of the left eye was

widely dilated, and would not respond to the light. Patient stated that he could distinguish daylight from darkness with this eye; this may be doubted, as he was unable to tell any difference in the light of the room when the lamp was held immediately before his eyes and when it was withdrawn from the room.

Appetite but little impaired during the entire time that he was under observation; his bowels were constipated. He stated that his "spells," as he termed them, were invariably preceded, accompanied, and followed by a heavy, dull aching in the back part of his head, his neck and back; and that the "shaking" seemed to commence in the back part of his head, and extend thence all over him; when, in fact, the invasion of a paroxysm was marked to the bystander by a twitching of the muscles of the extremities, which was speedily followed by the motions immediately described.

At the commencement of each attack the forearms were semiflexed upon the arms, the hands semiflexed upon the forearms, thighs slightly bent upon abdomen, and the legs upon the thighs. These relative positions of the members were not changed by the convulsions. The trunk was only slightly bent forward, and at no time was there either opisthotonos or lateral contortion of the body. During a convulsion the flexors and extensors seemed so evenly balanced in the amount of motor influence alternately received, that neither the hands or feet would move more than six inches under the influence of one set of muscles, until they were violently jerked in the other direction by the opposing set; while the motion of the lower portion of the trunk backward and forward was, although limited in extent of space, almost inconceivably rapid. The muscles of the face were affected but slightly, if at all, and respiration was not interfered with to any notable degree.

I am thus particular in describing these convulsions because they were unlike anything I had heretofore seen.

In intellect the patient was always somewhat obtuse, without, however, being an imbecile. On inquiry, I learned that since his attack on December 1st, the patient had been for a short time under the treatment of Dr. Gray, of Palestine, Ind., who

had assaulted the malady with the whole battery of antispasmodics, and without making an impression, and afterwards of a quack "Indian Doctor" of Warsaw, Ind., the nature of whose medication in the case I was unable to learn; its result, however, was, to say the least, not beneficial.

As I deemed it difficult, if not impossible, to arrive unaided at a satisfactory diagnosis upon which to base treatment, I suggested the propriety of sending for counsel; to this the friends of the patient would not accede, alleging that they had already had in employ one regular physician, and "The Indian Doctor," to no avail, and that they were not disposed to go to any further expense in the treatment of a case apparently so hopeless. At this point my interest in observing the course of the disease alone prevented my immediate withdrawal from any further connection with the case.

As the idea of chronic inflammation along the base of the brain seemed the most plausible in accounting for the symptoms present, I applied a blister at the nape of the neck, and gave a sharp purgative, promising to return next morning and continue treatment. The patient complained of pain in the limbs and back, and as I was perhaps unduly cautious as to the use of opium in his case (as I was uncertain as to the correctness of my diagnosis), I left a few doses of ext. hyoscyamus, to be taken at intervals through the night.

January 30th.—Received word that Jerry was better, and that I need not visit him. Discharged because I had not held out hopes of a cure.

December 13th, 1868.—As I was passing on my way to another patient, I stopped to see Jerry. He has received no treatment since my visit. Convulsions still recurring every few hours, or more often, and he is manifestly losing flesh and strength. Appetite good. Pulse 40 per minute. Both pupils moderately dilated.

March 17th.—Jerry no better, his longest respite from convulsions being twelve to eighteen hours. Pulse 45 per minute. In addition to convulsions, now complains of occasional dyspnoea; says he "can hardly get his breath sometimes for half

an hour at a time." Has had no treatment of any kind since December 29th.

July 8th.—Saw Jerry at work washing clothes, still blind, still suffering from occasional difficulty of breathing, and still shaking every few hours. Pulse 60 per minute, and general health much improved.

Shortly after this date I removed to my present location, and lost sight of the case. Since its occurrence I have read with especial interest all the reported cases of tumor of the brain upon which I could lay my hands, yet I find in none of them an analogous case. If chronic inflammation along the base of the brain caused the symptoms observed, the next query would relate to the cause of the inflammation: The blow from the snow-ball seven years ago? I know of nothing else in the history of the case that could stand in a causative relation to such a supposed condition.

Of the cranial nerves, only the 2d and auditory division of the 7th (on the right side) were, as per evidence of the symptoms, affected; unless, indeed, the occasional attacks of dyspnoea complained of be referable to perverted action of the pneumo-gastric.

But for the evidence of organic disease furnished by these nerves, I should have felt no hesitancy in pronouncing the affection a case of *Convulsive Tumor*, as described by Dr. W. A. Hammond (*New York Med. Jour.*, June, 1867—Ranking's *Hf.-Yearly Abs.*, Vol. XVI., p. 48, *et seq.*).

ABORTION.—Dr. Fordyce Barker places great faith in chlorate of potash. This was first suggested by Sir James Y. Simpson, on the ground that its oxygen producing power would be beneficial in fatty placenta. Whatever might be the truth of this chemical theory, clinical experience has convinced Mr. Barker of the value of this remedy. Patients themselves notice its effect upon the movements of the fœtus. He relates several remarkable cases of success with this remedy after repeated abortions.—*Dominion Medical Journal.*

Proceedings of Societies.

MORGAN COUNTY MEDICAL SOCIETY.

The Society met in the Court House, Jacksonville, June 11th, at two o'clock P.M.

Upon being called to order by the President, Dr. David Prince, the proceedings of the last regular meeting were read and approved.

In the absence of the Secretary, Dr. C. J. Lucas was appointed Secretary *pro tem*.

The Treasurer of the last year, Dr. Craig, read his report, which was approved.

Dr. Robertson, of Tallula, exhibited a specimen of a tumor, taken from the cœcum and ascending colon, and gave the history of the case. The man, about 60 years of age, after a heavy lift in July last, felt an uneasiness in the bowels, which afterwards produced pain in that region. After a month, inflammation of the bowels set in, with formation of a tumor, which increased with the failure of his health. The tumor was hard and movable. Three weeks before his death he was troubled with diarrhœa in connection with a gurgling sound in the bowels after taking liquid, as is often heard in typhoid fever. One day before his death, May last, the tumor gave way, and convulsions followed. *Post mortem* examination showed an open tumor at the above-named place, with presence of pus in the bowels and opening of the tumor. The diagnosis was difficult during lifetime. The age and the slow progress of the disease could have given suspicion to cancerous disease, but no such diathesis in him or other members of the family could be traced.

Dr. Edgar, Sr., thought that formation of pus, if kept from the air, was not followed by early decline of health. Such tumors are common in women, in the region of the uterus and vagina, who are more subject to like injuries as in the above case,

producing abscess in parts distant from the place of injury, and obstructing, by pressure of the tumor, the functions of the adjacent organs.

Dr. Prince was of the opinion that mere presence of pus had no influence upon the decline of health, but the mechanical pressure and malposition of the bowels. He then related an interesting snake story, in which he was consulted.

Dr. Edgar, Sr., exhibited a cancerous tumor of the osteoid variety which he removed from the scrotum of a gentleman of this county. It was interesting chiefly on account of its being a different variety from any ever brought before and discussed by the Society. He also spoke of a case of hæmatoid cancer located in the throat, which he had under treatment last year. He held that cancer structure was specific and peculiar, both in form and mode of life.

Dr. Prince remarked, "It is thought that it is a blood disease. Why is syphilis not of the same nature? In the latter disease the commencement is local as a pimple on some part of the body, unless transmitted from mother to offspring. The first manifestation of cancer is a local tumor, and before it becomes large and branches out, it produces no local cachexia. Cancer, if cut out early, will produce no bad effects. Removals of cancer of the lips are generally successful, and they seldom return. The infiltration of the poison comes afterwards." He did not consider cancer a blood disease at its first appearance. An operation in Dr. Robertson's case, he thought, would only have accelerated the death of the patient.

Dr. Reed was of opinion that the cause of cancer is an imperfect development of the lymphatic system, and not a blood disease. Cancer and obscure tumors can often be kept back and cured by a proper tonic and narcotic treatment. He spoke of a case of cancer in which removal by the knife was urgently recommended, but the patient objected to it. He improved under treatment of iron and quinine. In another case of scirrhus, the disease was removed by tonic treatment. He died from old age, and from an attack of fever.

Dr. Edgar, Sr., doubted this theory, and thought that if

phthisis and syphilis were caused by derangement of the lymphatic system, and a child of syphilitic parents should not be nursed by the mother, the disease on the offspring would be caused by the poisoned blood, and not by the imperfect lymphatics.

Dr. Prince read a very interesting and able paper on convulsions, which caused a general discussion on this subject. He was requested by the Society to furnish a copy of it to some medical journal.

Dr. Bibb said that he was in the habit of using anæsthetics in convulsions, but lately, in four cases, tried the voltaic battery with good effect. He advises voltaic electricity in many cases of headache.

Dr. Lucas stated that in convulsions caused from irritation in the stomach, or from teething, mustard given for its emetic effect will be beneficial, producing vomiting only afterwards. If caused from irritation of the bowels, injections of warm water, to a great extent, even in infants one to two pints, will often relieve the disease as soon as the bowels are well washed out.

Questions arose in regard to the use of the voltaic battery in headache and other neuralgic diseases.

Dr. Craig said he used it with benefit in toothache.

Dr. Fisher relies more on nerve and blood tonics in neuralgia. He recommends, in protracted cases of cholera-infantum, an early nutritive and stimulating treatment, by which, he thinks, convulsions can often be kept back.

Dr. DeLeuw recommends, in convulsions of plethoric cases, the application of cold water to the head and spine; in anæmic cases, spirituous washings in connection with the internal use of valerianate of zinc, hyoscyamus, and musk. He reported also a case of poisoning by arsenic, treated by an emetic, albuminous drinks, and hydrated oxide of iron, resulting in recovery.

Drs. Reed and Robertson were appointed to read essays at the next meeting.

At five o'clock the Society adjourned.

C. J. LUCAS, M.D., Secretary *pro tem*.

The Clinique.

CLINICAL REPORT FROM MEDICAL WARDS OF MERCY HOSPITAL.

Service of N. S. DAVIS, M.D., Professor of Clinical Medicine, etc. Reported
by W. A. BARSTOW.

PROBABLE SOFTENING OF THE BRAIN.

GENTLEMEN:—The case before you is one of interest, more especially in regard to its pathology and diagnosis. The patient is a native of Ireland, about 45 years of age, naturally muscular and strong; by occupation a laborer.

As you look at him in bed, you readily recognize a vacant, staring expression of countenance; a dorsal position, with limbs extended; not a tremulous, but an unsteady and backward movement of the hands; and in answer to my questions, you notice his speech is slow, hesitating, and frequently stops in the middle of a sentence, apparently losing the connection of thought. His mind often wanders, and his sleep is disturbed. He complains of no pain, and exhibits no sign of fever, not even increased heat in his head. The pupils are slightly dilated, and the vessels of the conjunctiva free from congestion.

He protrudes his tongue readily, giving it a narrow and pointed shape, and you see on its surface a thick, moist coat, particularly along its middle line. You find his skin soft, temperature natural, and sensibility good.

While lying in bed he can move all his limbs, and in any desired direction; and yet he can neither get up, nor stand erect, nor walk. He has only a partial control over the sphincters; both urine and feces being passed in bed. His pulse is soft and rather slow, but not intermitting; and when awake his respirations are nearly natural.

This man was admitted into the hospital only two days since, and his history, so far as I can obtain it, is as follows:—About six months since his friends began to notice slight indications of failure in his mental faculties, and some unsteadiness in his

walk. These indications gradually increased, without the supervention of any sudden or severe sickness, until he has arrived at the entirely helpless condition, mentally and physically, that you see before you. For several years previous to the supervention of his present sickness, he had been addicted to the intemperate use of alcoholic drinks; and the same were continued for two or three months after his health began to fail.

With this review of the history and present symptoms, where is the seat of disease, and what the nature of the pathological changes which have taken place? The inability to maintain an upright position or to control the sphincters of the bladder and rectum, taken in connection with the impaired state of the mental faculties, show plainly that the seat of disease is within the cranium.

We may have inability to walk, with loss of control over the sphincters from disease of the spinal cord or its membranes; but in such cases the mental operations would not be impaired. But conceding the seat of disease to be the brain or its coverings, what is the nature of such disease? Is it a chronic inflammation of the cerebral substance? Or, is it a slow atrophy from defective nutrition? Or, again, can it be a mere functional derangement, consisting of impaired cerebral sensibility? To answer these questions reliably requires close examination of the patient, and an accurate knowledge of the symptoms that distinguish one pathological condition of the brain from another. Inflammation, either acute or chronic, involving the membranes or convolutions of the brain, causes increased heat; pain; restlessness; acuteness of sensibility; with positive mental derangement in the first stage; followed by effusion; paralysis; and coma, or continued insanity, in the second. If the inflammation involve the interior of the brain, there may be less evidence of mental derangement, but there will still be pain; indisposition to move the head; increased temperature; altered pupils; and more or less rigidity of the voluntary muscles, either of the neck or extremities.

At no period in the history of the case before us were any of these symptoms characteristic of cerebral inflammation present.

On the contrary, the head has been free from heat or pain, and the muscular system more and more flaccid and feeble in contractility, from the commencement of ill-health to the present time.

Mere functional disturbances of the brain are usually variable in the symptoms, and rarely cause a steadily progressive loss of flesh or of muscular strength. But when the nutrition of the brain has been impaired, by the long continuance of slowly-acting causes, and the texture begins to soften or atrophy from deficiency of atoms, the symptoms are those of simple impairment of function.

The patient is not, at first, either delirious or paralyzed. He becomes forgetful; is unable to maintain continuous thought and expression, often losing the thought in the middle of a sentence; while his gait becomes unsteady, and all his muscular movements enfeebled. The symptoms thus begun generally increase steadily, until the mental manifestations become simple, imperfect, and sometimes incoherent; and the muscular action so impaired as to render the patient incapable of walking, or even of maintaining the erect position. Only a few weeks since, a young man occupied a bed in this ward, who had been employed as a clerk in a grocery store, and had been regarded as a reliable and correct young man. He was first noticed to be despondent, without any known cause. Soon he became forgetful; then slow in his movements, and after some weeks wholly incapable of doing business. When admitted into the hospital, his face was pale; expression downcast and vacant; skin cool; pulse slow and soft; bowels inactive; and entire loss of all disposition to either mental or physical exertion. It was difficult to induce him to answer a question; and when he did his voice was weak, and his expression slow and interrupted. He neither asked for food or drink, but would sit in a chair or lie in bed from morning until night almost motionless. It was necessary to feed him in the same manner as a young child; and, at suitable intervals, call his attention to the necessity of evacuating the bladder and rectum. He complained of little or no pain, exhibited no spasmodic action of muscles or rigidity,

but sometimes, especially in the night, under some mental hallucination, he would attempt to wander about the house.

After observing him for some time, and trying without benefit several items of treatment, I became satisfied that the condition of the brain was that of anæmia and deficient nutrition, but not yet advanced to the degree of actual softening or disintegration. He was consequently put upon the use of syrup of pyrophosphate of iron, in doses of a teaspoonful three or four times a day, a diet of plain, nutritious food, such as milk, bread, rice, tender meats, etc.; and the use of an electro-magnetic battery once or twice every day. He was also encouraged to make efforts at walking, and, as soon as possible, to get out in the open air every day.

This course of treatment was carried out faithfully several weeks, and resulted in a slow recovery of the patient, who is now at his previous occupation. All the symptoms of the case before you have been, and now are, of such a character as to indicate a similar arrest of nutrition of the brain, more especially of the internal parts. But in this case the morbid process has probably continued until the texture has become so far changed as to be unable to perform its functions. In other words, some parts of the brain are in a state of *ramollissement*, or softening. If so, the prognosis is exceedingly unfavorable; and there would be little benefit from any kind of medical treatment. So long, however, as we cannot know positively that cerebral disorganization exists, it is our duty to prescribe such treatment as would be most likely to restore the patient, if the structural changes had not reached a stage incapable of repair. The indications are to increase the sensibility and activity of the mucous centres, thereby restoring more steady and efficient muscular action, especially in the involuntary muscles, and to improve the nutrition of the brain. Probably small doses of strychnine would fill the first indication, and some one of the phosphatic salts of iron the second, as well as any remedies that we could select. Hence, we will direct the following prescription:—

Ry.	Strychnine,-----	1 gr.
	Nitric Acid,-----	ʒj.
	Simple Syrup,-----	ʒj.
	Water,-----	ʒij.

Mix, and give a teaspoonful every six hours, diluted with sweetened water.

Also, one teaspoonful of the pyrophosphate of iron every six hours; making the medicines come alternately three hours apart. We will have him fed regularly with milk, bread, rice, etc.

The result you will be able to learn at a subsequent clinic.

Selections.

ON THE TREATMENT OF WHOOPING-COUGH.

By JOHN C. PETERS, M.D., of New York.

Is there any additional experience in the use of the decoction of chestnut leaves (*castanea visca*) in whooping-cough? Some time ago, Dr. Unzieker, of Cincinnati, gave it a fair trial in 30 cases, and felt satisfied that he had at last found a remedy to cope with this disease. It always gave decided relief in the first two weeks. First the cough was lessened and the patient rested easier at night, then the decline of all the symptoms became very rapid. He used three or four drachms of the leaves in boiling water, to be drank *ad libitum*, either hot or cold, and with or without sugar. Children do not dislike it.

The remedy is so simple, safe, and pleasant, that if this is not another instance of those tremendous exaggerations which so often make their way into the records of medicine, it should receive careful attention, especially as the remedy is so easily procured.

In the mild cases of whooping-cough, which generally last only two or three weeks, very little treatment is required. The suggestion of Dr. Snow, of Providence, to place small quantities of *carbolate of lime* in saucers about the room, where the child lives and sleeps, deserves attention as a prophylactic and disinfecting agent. It not only prevents others from con-

tracting the disease, and destroys the contagion of the disorder on the spot, but also helps the patient. For Dr. SNOW says, in all cases in which he tried it, a marked effect in diminishing the frequency and severity of the cough was quickly noticed.

The carbolate of lime is almost as cheap as the chloride, and need not be made unpleasant, for only sufficient should be put in the saucers to render its odor barely perceptible. Some should also be put in the spit-cups, slop-jars, etc., in which the children expectorate or vomit. For it is not only the breath of the child, but its secretions and excretions, which convey the disease to others. Thus Dr. AITKEN says the disorder was first introduced into St. Helena by the captain of a ship, who sent the clothes of some children with whooping-cough on shore to be washed. We have known the disease to be conveyed several miles in the winter-time by the mother of a nursing infant. The child nursed just before its mother left the house; she at once put on her cloak and furs, and thus shut in the infection; then went to see her sister's children, whom she took on her lap and fondled. They contracted the disease at the usual time.

It is very probable, that there would be many more cases of *pertussis mitior* than *gravior*, if the hygienic management of the little sufferers were better attended to, than it generally is. Mild cases, which often last two or three weeks, may easily be converted into severe ones, by shutting the patient up in close rooms, or even heated houses, until these become filled with poisonous emanations, which probably unite with other effete matters and increase the malaria many fold. It is especially in these cases that change of air does so much good. The patient is benefited even by removal to so short a distance as half a mile; a sail across a river is also beneficial, although the distance be short, especially if the house be well ventilated while the patient is absent. This is all the mystery in those cases in which children recover from an almost hopeless state, even in a few hours after they have been sent away from home.

From the very commencement the child should be well clad, and kept in the open air as much as the weather will permit. Next to bad air, the most injurious agent is improper food, consisting of rich, sweet, indigestible, or greasy articles. These things not only irritate the stomach, but cause risings of acrid gases and fluids, which almost excoriate the pharynx and larynx and superinduce a stomach or throat-cough in addition to the specific disorder. And each aggravates the other. A light but nourishing diet of bread and milk, hominy, rice, corn-starch,

farina, etc., with meat once a day, consisting of plain soup, the inside cuts of beef or mutton, chicken and fish without the skins; no fried potatoes, made gravies, or rich fricassees, etc., etc., will keep up the strength of the child and prevent all derangement of the stomach. Some bland or mucilaginous drink may be partaken of freely, like barley, or gum-Arabic water, flax-seed, or slippery-elm tea, etc. These will soothe and moisten the throat, and whole œsophageal and gastric mucous membrane.

It is not sufficiently known that in severe cases of whooping-cough, the stomach is singularly red and injected; and when it becomes inflamed, this is denoted not only by pain in the epigastrium, but also by the suppression of the glairy fluid, which should be thrown up by vomiting. In these cases, the little patient often lies in a state of complete exhaustion at the termination of the paroxysm of coughing, unable to discharge anything, either from the stomach or lungs, or even to whoop (AITKEN). Counter-irritation to the epigastrium, with or without aconite in soap—or weak hartshorn liniment to the back, are the most useful remedies in these cases. Even a few leeches to the stomach and a flax-seed poultice are not amiss. It is probably in these gastric cases, before they have advanced to far, that ipecac., has gained its great reputation.

The *first or catarrhal stage* of ordinary whooping-cough is like that of a feverish cold, and it is not until the fever remits and is about to pass away, that the cough which has previously distressed the patient, is followed by the characteristic whoop. The first stage may last from six or eight days to two or three weeks; but an experienced and observant physician will suspect the disease he has to deal with from the peculiar paroxysmal character of the coughs, which are divided by long intervals of comparative ease. Small doses of acetate of ammonia and ipecac., are useful in this stage: liquor ammoniæ acetatis ℥iiss, syrupi ipecac., ℥ss. Dose: quarter, half, or whole teaspoonful in water several times a day, according to the age of the child; or ipecac., and spirits of nitre: spts. nit. dulce, ℥ij; syrupi ipecac., ℥ij; aq. cinnamomi ℥iiss. Dose: quarter, half, or whole teaspoonful in a little water. Those who prefer it may give one or two drops of aconite; or two or three drops of digitalis; or one or two drops of gelsiminium, or quarter, half, or whole drops of tinct. of veratrum viride.

When the second or spasmodic stage sets in, the patient has a series of fits or paroxysms of severe coughing, occurring at irregular, but rather long intervals, and so rapid is the action

of the diaphragm, that the air is almost instantly expelled from the lungs, and the patient half suffocated, turns black in the face. At length the crisis approaches, the diaphragm relaxes, and a violent inspiration follows, accompanied by the characteristic *whoop*. This sound remits, but soon returns, and thus convulsive inspiration and expiration continue, till the patient is at length relieved by a copious expectoration, or vomiting, or both. The matters expectorated are frequently thick, viscid, and muciform. Those vomited are thick and glairy, of much tenacity, semi-transparent, and often very copious (AITKEN). It is in this stage that alkalies are so very beneficial. Sub. carbonate of potash 20 grains; cochineal 10 grains; sugar, one-quarter oz.; water four oz.: rub together and strain. Dose: quarter teaspoonful four times a day for a child one year old; half a teaspoonful for one of two years; and a teaspoonful for one of four years. The cochineal is supposed by some to be an anti-spasmodic of some power, but it is more than probable that the alkali is the only efficient part of the prescription.

Dr. Hawley found the bromide of ammonium useful on account of its peculiar anæsthetic effect on the nerves of the larynx and pharynx. Dose: one or two grains thrice a day for infants; up to twelve grains for much older children.

The infusion of *wild thyme* slightly sweetened is said to effect great improvement of the spasmodic cough. Aitken thinks it is not very important which of the more decided sedatives or antispasmodics is selected, but thinks hyoscyamus and syrup of poppies are the safest and best. Still, there is no doubt that *conium maculatum* is milder and better than hyoscyamus, belladonna, prussic acid, or opium. Potassæ sub. carb. gr. 20; aq. fœniculi three and a half ounces; tinct. conii maculat. half ounce. Dose: quarter, half, or whole teaspoonful, according to the age of the child. In severe cases: substitute 1 drachm of tinct. belladonna, for the half ounce of conium; or ten minims of dilute hydrocyanic acid.

Vollant and others prefer the powdered root of *belladonna* alone, giving one-fifth of a grain, first once, then twice, and finally four times a day, until the paroxysms begin to subside, which will certainly be on the third or fourth day. Then it is to be given at much longer intervals.

Others prefer *prussic acid* alone. Acid. hydrocyan. dilut. *m.* iv; syrapi simplicis, vel misturæ amygdalæ one drachm; aq. pur. seven drachms. Dose: half or one teaspoonful for a child nine months old. Or pulv. ipecac. compos. half to one and a half grain; ext. conii maculat. one gr.; pulv. cinnamomi gr. ij;

sacch. alb. gr. iv; make a powder to be given at night, for children two years of age, when there is but little wheezing or vomiting, but a very troublesome night-cough.

The most frequent complication of this disease is acute *bronchitis*, when the mucus not only becomes deficient in quantity, but thick and viscid, teasing the patient with fruitless efforts to free it from the lungs, thus causing a frequent recurrence of the paroxysm. The alkaline treatment is the best here, with the addition of a few drops of aconite or digitalis. Or equal parts of aquæ laurocerasi, tinct. digitalis, and wine of antimony may be given in three, five, ten, or more drop doses.

When the bronchitis becomes more *chronic* and assumes the form of purulent inflammation, the pus secreted being formed into sputa and moderate in quantity, give: Misturæ ammoniaci one and a half ounce; aquæ cinnamomi, one and a half ounce; syrupi tolutani, half oz.; tinct. castorei, two drachms; tinct. opii camph., two drachms. Dose: one, two, or three teaspoonfuls, according to the age of the child, frequently (PARIS). When the pus is thrown up pure as from an abscess and in large quantities, astringents are required. Aluminis, gr. 24; acidi sulph. diluti *m.* 12; syrupi rheados (poppies) half an oz.; aq. pur. two and a half oz. Dose: one to three teaspoonfuls every six hours (WEST). Or: aluminis gr. 25; extracti conii maculat. gr. 12; syrupi rheados two drachms; aquæ anethi three oz. Dose: one or two teaspoonfuls every three or six hours, for a child two or three years old (GOLDING BIRD). Acidi nitrici diluti twelve drachms; tinct. cardamomi comp. three drachms; aquæ three and a half oz.; syrupi one oz. (GIBBS). One or two teaspoonfuls every two or three hours will cure in from two to fourteen days. Zinci sulphatis gr. eight; extracti belladonna, gr. two to five; aquæ four oz. Dose: one to four teaspoonfuls, two, four, or six times a day, for a child three years old.

If inflammation of the lungs set in, the treatment is nearly the same as for acute bronchitis. Or vini antimonii potassio-tante, *m.* 30; vini ipecac., *m.* 10; tinct. aconit. rad. *m.* 5; tinct. camphoræ compos. *m.* 20; mucilag. acaciæ seven drachms. Dose: one or two teaspoonfuls every four hours, for a child four years of age (WEST).

But the most distressing accident is when the pleura becomes inflamed, for then the patient's sufferings are fearfully increased during the paroxysms of the cough. Then a roller bandage should be put on the chest to limit the movements of the ribs as much as possible. This may be moistened with an infusion

of digitalis, or aconite, or opium; and the ordinary internal treatment well followed up. But the results of nineteen *post mortem* examinations made by Graily Hewitt during a recent epidemic, showed that the most frequent and fatal lesion of the lungs, in children from one month to four years of age, was collapse of the lung substance, or a return to the foetal condition, or *atelectasis*. This calls for the free employment of stimulants and as strong liquid nourishment as can be digested. Tinct. nucis vomica, quarter, half, or one drop every few hours; or, tinct. cantharidis dr. j; tinct. camphoræ compos. ʒj; tinct. cinchonæ compos. dr. 10. Dose: quarter or half teaspoonful every two or four hours. Or three to five, or ten drops of aromatic spirits of ammonia.

In the third stage a number of remedies have been recommended. Assafoetida is much esteemed, and is considered by some physicians to be a specific not only in this, but in every other stage of the disease. Aitken says, it should be given in an emulsion, in the dose of one or two grains to a child two years old, repeated three or four times a day, or even as often as every two or three hours. Tinct. assafoetida dr. j; tinct. opii m. 10; ipecacuanhæ pulv. gr. 10; aquæ two oz. Dose: one teaspoonful every three or four hours (REECE). Assafoetidæ puræ dr. j; olei amygdalæ dulc. gutt. 20; rub together, and add mucilag. acaciæ two oz.; syrapi althææ one oz. Dose: one teaspoonful every two hours for a child two years old (KOPP). Ext. lactucæ viros gr. iv; assafoetidæ depur. gr. viij; sacch. lact. vel. alb. gr. 40. Make eight powders; one every two or four hours.

Musk and castor have been largely used in severely spasmodic cases. Tinct. castorei half oz.; spts. lavend. compos. two dr.; aq. camphoræ ad. two oz. Dose: quarter or half teaspoonful in sweetened water. Ext. pulsatillæ gr. j; pulv. rad. valerian minor gr. three to six; elæosacchar, fœnicul, half drachm. Make twelve powders; one from two to four times a day. Herb. ledi palustris (wild rosemary) fol. sennæ dr. j; pulv. ipecac. gr. four; aquæ fervent four ozs.; sacch. alb. half to one oz.; liquor ammon. anisat. one drachm. Dose: one to four teaspoonfuls every two to four hours. Highly recommended by BUTTNER. Ext. dulcamaræ gr. 20; kali tartar depur gr. 40; aq. fœnicul one oz.; vini stibiat. half drachm. Dose: five to twenty drops in water, every two, four, or six hours.

The external treatment has received great attention. Olei succini dr. 2; liniment saponis compos. dr. 10; mix for a liniment similar to Roche's. Rub one drachm upon the back and

chest, two or three times a day (HOOPER). Spirit. camphoræ half oz.; tinct. opii. dr. 2; olei succini dr. 2; olei amygdalæ half oz. Mix for a liniment to be rubbed on the chest, night and morning (SAVORY).

Tanner prefers tinct. aconite dr. 2: soap liniment dr. 12; or a mixture of equal parts of tinct. belladonnæ, glycerine, and camphor liniment, to be rubbed on the back every night.

Such is the abundance of good and useful remedies, that all new suggestions should be received with great caution.—*Medical Gazette.*

TREATMENT OF PARALYSIS BY HYPODERMIC INJECTIONS OF STRYCHNINE.

M. Gonzalez Echeverria, M.D., in a paper read before the Connecticut Medical Society, May 28th, 1868, narrated several cases of paralysis treated by him, by hypodermic injections of strychnine, with remarks on infantile palsy.

These cases were selected by him as evidences of subcutaneous injections, proving by themselves an efficient means of treatment.

Case 1. A soldier, after being kept on picket duty all night, in water up to his knees, was admitted into the Central Park U. S. A. General Hospital, with paraplegia. The limbs were blue and cold, without sensibility, up to the knees. Lithates were abundant in the urine. The bowels and bladder were torpid. By the application of electricity to the limbs, and the internal use of tonics and strychnine, the paralyzed condition was slowly relieved. One-sixtieth of a grain of sulphate of strychnine was injected below the knee. The operation was repeated four or five times, at intervals of three days, and from the first injection, the patient, to his great joy, could walk without crutches. A feeling of warmth was noticed after the first puncture, with marked diaphoresis.

Case 2. A gentleman, on account of a sudden exposure to cold, while playing tenpins, became paralytic in the right leg. The patient, from the onset, was in constant agony from pain. Slight temporary relief was obtained by the use of blisters over the hip-joint, and the employment of narcotics. Soon the muscles of the thigh and leg began to waste away, and hyperæsthesia persisted to such an extent that the slightest touch of the skin would cause excruciating pain. Chlorides were found in excess in the urine.

After one-fiftieth of a grain of strychnine was injected into the thigh, the application of electricity was resorted to—as the patient stated that electricity had given him some relief previously. After the first puncture, more power and warmth were felt all over the limb. The pain subsided, and for the first time he enjoyed a night of uninterrupted rest. Diaphoresis followed, and the pupils dilated. More or less gurgling of the bowels seemed to be one of the earliest effects of the subcutaneous injection of strychnine. At intervals of four days, the same dose of strychnine was injected three times more. Power was restored to the paralyzed muscles, by a tonic regimen, with electricity; the hot and cold douche to the limb, and two more subcutaneous injections of one-fiftieth of a grain of strychnine.

Cases 3 and 4. These cases were of simultaneous paralysis in two children, brother and sister; the boy one and a half years old, the girl three. They were seized with symptoms of spinal meningitis, produced by sitting on the wet grass. The children were seen after the acute stage of the disease was passed. The girl had lost all power of both legs and right arm. The boy was only paraplegic. Hypodermic injections of strychnine were suggested, which being approved by the attending physicians, he injected five times—once every three days—one-fiftieth of a grain in the legs of the boy and over the lower part of the spine, who was able to walk, with a little unsteadiness, in the course of six weeks. Tonics, warm baths, electricity, and strychnine by the mouth, finished the cure. The girl did not progress as fast. She had fourteen injections of one-fiftieth of a grain of strychnine during three months. She could stand or walk, but became fatigued very easily, and the arm and hand recovered power to grasp more firmly. Electricity and the same treatment were kept up as with her brother, but she was not cured, though benefited considerably, on account of the absence of the parents from New York.

In these cases—as in other similar cases—fibrillar contractions of the muscles in the limbs, lasting for a minute or two, were noticed.

Case 5. A boy four years of age, affected with paraplegia, which had existed for two years, was treated by him. The paralysis followed a fever. The muscles of both legs were much wasted from the knee down to the feet, which were affected with talipes equinus. The child could only move about on his knees. When first seen he was suffering with bronchitis, following scarlatina.

Local applications of electricity to the palsied muscles were

advised, with hypodermic injections of strychnine. The injection was practised in the anterior region of the limbs, one-sixtieth of a grain of strychnine being introduced in the tibialis anticus. Every third day, during four months, one-sixtieth of a grain was injected, also the daily application of electricity, for half an hour. The child recovered to such a degree that he could stand or walk, with the assistance of an orthopædic apparatus.

Several more cases were described at length in his paper, but the five already mentioned show the importance of subcutaneous injections of strychnine in the treatment of paralysis.

The results observed by the author, and by the physicians quoted in his paper, "strongly indicate the cardinal part of the sympathetic in the pathogeny especially of infantile paralysis."

Strychnine administered by the mouth, or hypodermically, has an entirely different effect. By the former, the quantity may be increased and repeated unsuccessfully; while by the latter—in a smaller dose—the lost muscular power is restored.

As to the manner of performing the injections, his own language will explain: "Generally, I insert the trocar of the syringe into the paralyzed muscle, and draw part of it out to avoid throwing the solution directly into the bloodvessel. The injection should be practised very slowly; by having a solution with one-hundredth or a smaller fraction of a grain to a drop, the strychnine may be so diluted as to allow carrying its action at the same time into more than one of the palsied muscles. The general effects are more rapid and decided when the solution penetrates no deeper than the cellular tissue, or when the puncture is made along the spine."

ARSENIC IN THE TREATMENT OF UTERINE AFFECTIONS.

ARSENIC, according to Waring and Stillé, has been used with decided benefit in carcinoma of the uterus, in irritable uterus, and in menorrhagia, by Dr. Hunt, of Dartmouth, England. Its value in atonic menorrhagia has been confirmed by the celebrated Dr. Locock, who states that he has employed it with great success in this and many other uterine affections. He thinks it acts specifically. In one case of cancer of the uterus, in which no relief was obtained from twenty-four grains of morphia, great ease and benefit accrued from small doses of Fowler's

Solution. Dr. Locock thinks highly of arsenic in this class of diseases. In menorrhagia, leucorrhœa, and uterine hemorrhage, in threatened abortion, and after delivery, Dr. A. Burns speaks of arsenic as a most reliable remedy. In leucorrhœa he gives five drops of Fowler's Solution three times a day, till a cure is effected. Dr. Simpson has used it successfully in amenorrhœa and dysmenorrhœa, as well as in that peculiar affection of the bowels characterized by copious discharges of membranous shreds, and accompanied by great emaciation and a long train of neuralgic and other nervous symptoms.

M. Imbert Goubeyre has drawn attention to the great utility of Fowler's Solution in the treatment of vulvar pruritus. Other physicians have found it more useful in ulcerations of the os uteri than the application of nitrate of silver and other caustics. In fact, it is as beneficial in various ulcerations of the mucous membranes as it is well known to be in many ulcerations and eruptions upon the skin.

As regards the *modus operandi* of arsenic, it may be put down as a tonic when given in small or medicinal doses. It then excites a sense of warmth in the stomach and bowels, increases the appetite, and in some degree also the fecal and urinary discharges. The skin becomes warmer, the pulse fuller and more frequent, the muscular system more active, and the whole organism invigorated, freer and lighter in its movements, and even the mind improves in activity and power. Such a remedy is well calculated to remove chronic congestions, and even chronic inflammations, such as depend upon a feeble rather than a sthenic condition of the vascular and uterine system.

In larger doses it acts as an irritant, like pepper, mustard, ginger, and may unquestionably stimulate the stomach and promote the action of the bile, pancreas, and mucous glands, and thus favor nutrition.

The somewhat fanciful Germans suggest that it may act not only as a tonic, or rather stimulant, but as a delicate caustic to new formations and those with fragile attachments. Others say that the long-continued use of arsenic causes chronic anæmia, coupled with disintegration of the blood corpuscles, diminution of the proportion of fibrin, and general impairment of the vital principle upon which the normal qualities of the blood depend. Hence they infer that it acts as an antagonistic agent against hyperæmia, congestion, chronic or subacute inflammation, etc. In fact, they declare that it is the most certain and powerful emmenagogue of the whole *Materia Medica*. The typical cases of amenorrhœa in which its use is most appropriate, are thus

described by Vogt:—They occur in persons of a torpid and relaxed constitution, and disposed to mucous accumulations and menorrhœal discharges; in other words, there is a general atony of the system in which the uterus participates, and of which the capital sign is leucorrhœa occurring exclusively, or in an aggravated degree about the catamenial period. When there is a great want of tone in the system it may have to be aided with bark, iron, and other tonic medicines. It is thought to be almost as specific against uterine leucorrhœa as copaiba is against gonorrhœa, and to act in a somewhat similar manner. Kopp has recommended it in *sterility* arising from uterine leucorrhœa, or depending upon a torpid state of the sexual organs. He also states that it acts as an excitant of the venereal propensity.

It is very easy to understand the action of sabina in these disorders, and to expect and anticipate the benefit which will almost surely follow its use. But Kopp has recommended it in more complicated states, such as *dysmenorrhœa*, particularly in unmarried females, and when it is attended with expulsive pains and discharges of scanty, dark and clotted blood, or when, as in other cases, there is an augmented flow taking place irregularly, ceasing, then reappearing, etc. He usually prescribed it in conjunction with borax, and states that it relieves *menorrhagia* when this acts in congestive uterine affections in the same advantageous way that it does in plethora, in the determination of blood to the head, and in apoplectic congestions, against which Dr. L. Piquot considers that it operates by reducing in a remarkable manner the excess of the red globules of the blood, which, in these cases, he supposes to exist in a morbid and dangerous degree, having witnessed more relief from the use of liquor arsenicalis in combination with liquor potassæ, than from the local abstraction of blood, blisters, setons, etc.—*Medical Gazette*.

INHALATION OF OXYGEN AFTER TRACHEOTOMY.—Dr. Jacobi, of New York (*Medical Record*), after opening the trachea in a case of croup, finding the patient to suffer much from difficult respiration, resorted to the inhalation of oxygen gas mingled with common air, and introduced through the canula by an elastic tube. The result was very satisfactory. The child became quiet, and was finally so well satisfied with it that he would not allow the tube to be withdrawn. The relief, however, was transient. Next morning convulsions came on, but as soon as the oxygen was inhaled they ceased. The child finally died.

Book Notices.

A Handbook of Vaccination. By EDWARD C. SEATON, M.D., Medical Inspector to the Privy Council. Philadelphia: J. B. Lippincott & Co. 1868. Pp. 383. Price, \$2.25. For sale by S. G. Griggs & Co., Chicago.

This is a very full and convenient treatise on Vaccination, by a very competent author. It contains fourteen Chapters, on the following topics:—Of the natural Cow-Pox; Of the Horse-Pox; Of the Pocks in other Animals; Of the relation of Cow-Pox and Horse-Pox to Human Variola; Of Vaccine, or Cow-Pox in the Human Subject; Of Vaccinating; Of the Maintenance of Lymph-Supply; Of the Conveyance and Storage of Lymph; Of Skill and Success in Vaccinating, and of Insusceptibility; Of alleged degeneration of Lymph, and of recurrence to the Cow; Of the Protection which Vaccination affords; Of Revaccination; Of Stamping-out local Outbreaks of Small-Pox; Of the Objections to Vaccination, and the alleged dangers of the practice.

It is a very instructive volume for the student, and convenient for reference in the library of every practitioner.

Constipated Bowels: The various Causes and the different Means of Cure. By S. B. BIRCH, Member of the Royal College of Physicians, of London, etc., etc., etc. From the third London Edition. Philadelphia: Lindsay & Blakiston. 1868. Pp. 181. Price, \$1.25.

The general scope of this work is sufficiently indicated by its title. The author discusses the subject with ability, aided by practical experience.

Conservative Surgery, in its General and Successful Adaptation, in Cases of Severe Traumatic Injuries of the Limbs, with a Report of Cases. By ALBERT S. WALTER, M.D. Pittsburgh: W. S. Johnston & Co. 1868. Pp. 213—no binding.

This is a monograph, in paper cover, of 213 pages. After a few pages of introductory remarks on the value of *Conservatism* in Surgery, the remainder of the work is occupied by the detailed history of a considerable number of cases of severe injury to the extremities. As a collection of cases (more than fifty in number) showing the extent to which severe injuries may be repaired and limbs saved, that by a less conservative treatment would have been doomed to amputation, this work is of much value. Dr. Walter also claims that the most free exposure of wounds to *pure* air is not injurious. On the contrary, he advocates leaving wounds open, and, if need be, adding incisions sufficient to give the most free exit to extravasations of serum, blood, or pus. The author has made a valuable addition to the surgical literature of the profession.

Editorial.

TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION.—We have just received the nineteenth volume of the Transactions of our national organization. Like most of the preceding volumes, it is published in excellent style. It contains 497 pages, illustrated with several maps and plates. The contents are made up of the record of proceedings of the Annual Meeting in May, 1868; short reports from the officers of the several sections; the annual address by the President, S. D. Gross; and valuable reports and papers on the following subjects:—Medical Education; Medical Literature; Insanity; Provisions for the Chronic Insane; Topography, Climatology, and Epidemic Diseases of W. Virginia; Climatology and Epidemic Diseases of the District of Columbia; Topography, Meteorology, and Epidemic Diseases of Texas; on the Diseases of Pennsylvania; on the Conveyance of Cholera from Hindostan through Asia, Europe, and America; Plans for the Collection and Statistical Arrangement of Facts, etc.; on Ophthalmology; Treatment of Club-Foot without Tenotomy; New Method of reconstructing the

Lower Lip; New Mode of treating Congenital Talipes; Treatment of Syphilis by Hypodermic Injections; Safe and effectual Operation for the radical Cure of Varicocele; on American Medical Necrology. All these are important topics, and though none of the papers are of tedious length, they possess decided merit.

If any members of the Association, or others, desire a copy of this work and have not secured it by the payment of the annual assessment for 1868, they can still obtain it by forwarding five dollars to Casper Wister, M.D., Treasurer, Philadelphia.

MONUMENT TO ANÆSTHESIA.—Mr. Thomas Lee, of Boston, sometime since: made a liberal donation for a monument to commemorate the discovery and application of Ether as an anæsthetic in surgical practice.

The work has been completed and placed in the Public Garden, adjoining the Common, in Boston.

It was recently surrendered to the guardianship of the City Authorities by a dedicatory address and presentation by Dr. Henry G. Bigelow.

The following are the proceedings, with a description of the monument, as copied from the *Boston Daily Advertiser*, by a correspondent of the *Cincinnati Lancet and Observer*:—

MR. MAYOR:—It was the wish of the late venerable gentleman, who caused this monument to be erected, to rear an enduring memorial of the discovery in Boston, from which dates the era of painless surgery; and also that on some fitting occasion it should be offered for the acceptance of his fellow-citizens.

In no act of a long life, characterized by many deeds of liberality, by the exercise of a refined and cultivated taste of nature and for art, and by a discriminating judgment of men and of passing events, did he show greater discernment, than when he organized this work; and although he did not live to see it executed, he had so far supervised its plans, and so intrusted them to skilful hands, that no difficulty was met in completing its beautiful design in detailed conformity to his wishes.

This monument is intended, in the words of the tablet, which were written since his death, "To commemorate the discovery that the inhaling of ether causes insensibility of pain; first

proved to the world at the Massachusetts General Hospital, in Boston, October, A.D. 1846," by its appliance during a protracted dissection, which, when followed by one of the severest operations known to surgery, was a final and conclusive test in a close and connected series of successful experiments, which proved that pain could be annulled: first, with certainty, no matter who the individual; secondly, with completeness, no matter how great might be its degree; and thirdly, with safety. These three points were all absolutely involved in the discovery, and these alone. Before the consecutive experiments which culminated in those here recorded, neither of these points had been established by conclusive proof. The world was ignorant of the great truths they asserted, the discovery had not been made.

The philanthropist had indeed yearned to relieve suffering humanity; the poet had prophetically announced a world free from physical pain; the philosopher had made fruitless efforts to unveil the hidden secret. Instances of accidental insensibility had been observed. Here and there an ingenious man had devised and tried some single experiment with greater or less success, and then abandoned the pursuit; or tantalized by a possibility at one moment in his grasp, and in the next eluding it, stimulated by a flattering promise of achieving something at once practical and useful, had followed up his experiments hopefully, until some great public failure disheartened him, made his proselytes incredulous, and left the world still to suffer pain.

Men had been made insensible to pain through mental excitement, or by the agency of mesmerism or hypnotism, by the dead drunkenness of alcohol, the narcotism of opium, the inhalation of nitrous oxide and other gases, and even by the vapor of ether. For years all this had been known to be possible, but it attracted little attention. These previous experiments, instituted by different persons, were inconclusive, because they led to no constant result; the anæsthesia could not be relied on, or it was not demonstrated that it could be relied on, either sure to occur, or as proof against the severe forms of pain. The question of danger from this extraordinary trance was also unsettled. No consulting board of surgeons would have dared to sanction the production of prolonged unconsciousness during an operation, before the series of consecutive experiments were made here in Tremont St., and at the hospital. There had been a lack of perseverance or of good fortune in the experimenters, or an imperfection in their materials or method, and

the future discovery, which was soon to burst upon the world, halted for an interval of years at this imperfect stage. The whole progress of all invention and discovery has been a monotonous catalogue of such imperfect efforts and such failures. But when these consecutive experiments had been made in Boston, the discovery had been made; and in grateful and unhesitating recognition of it, the entire civilized world simultaneously rose up to hail it with acclamatory welcome.

Thus was made the discovery, and thus was begun the career of anæsthetic inhalation. Modifications, imitations, and substitutes have sprung up in all civilized countries. New processes and new materials will yet be furnished by science, or demanded by convenience or economy; but after more than twenty years of its successful trial, nothing has been found to surpass, in its efficiency or unqualified safety, the original ether then used.

To commemorate the triple and demonstrated discovery, not of a probable, an uncertain or untrustworthy, but of an inevitable, complete, and safe anæsthesia, this monument has been erected in a city which was the humble instrument of Divine Providence in diffusing to the nations this incalculable blessing.

I well remember when the eloquent and gifted man, whose brazen effigy on yonder pedestal so powerfully recalls his living presence, in an address delivered at the Medical College on the 4th of November, 1846, said, with an unconscious foreshadowing of what was soon to happen:—"I cannot suppress the remark that the great principle of analogy seems to authorize the hope that * * * further discoveries may be expected scarcely less brilliant than that of vaccination." How even far this prophetic inspiration fell short of the reality! How little did he dream that the lapse of a few brief days would herald to the earth the greatest boon ever accorded to the physical welfare of mankind; days of discovery that forever silenced the dreadful shriek of agony which many of us can yet recall in the surgical amphitheatre of the institution whose name is now immortalized, that stilled the moan of the soldier stricken down upon the battlefield, assuaged the pangs of disease, softened the approach of death, and lent a sweet obliviousness in what was once its hour of anguish to all animal existence, from the poor suffering brute up to humanity, to man born of woman, and to woman of whom man was born.

In the name and at the request of my venerable friend, the late Mr. Thomas Lee, of his executors, and of the gentlemen to whom he intrusted the arrangement of this ceremony, I beg to offer this memorial to you, sir, and through you to the city of Boston.

The remarks of Dr. Bigelow elicited considerable applause. Mayor Shurtleff responded as follows:—

In behalf of the municipal authorities of Boston, I now formally receive from you the gift of Mr. Thomas Lee; and promise that it shall be watched with care and protected from injury. And may this elegant structure long remain unimpaired by time, a memorial of the greatest boon ever vouchsafed to suffering humanity, and a monument of the gratitude of one of Boston's most worthy citizens.

The exercises were closed with an appropriate prayer by Rev. Dr. Lothrop, and after lingering about the monument for a while to admire its beauty and fine proportions, the audience dispersed.

We append a description of the monument, copied from the "History of the Water Works," by Nathaniel J. Bradlee, Esq., President of the Cochituate Water Board.

The form of the monument is suggested by mediæval types, modified by the nature of the white Concord granite used in its construction. It is about thirty feet in height, and arises from a square basin. Its base is cubical, leaving on each vertical face a niche containing a spouting lion's head, with sculptured water-lilies and other aquatic plants. Upon this base or plinth rests a surbase, adorned with mouldings from which arises a die, bearing upon each of its four sides an inscription, surmounted by a bas-relief in marble. These are sunk in the tympana of four pointed and cuspidated arches, supported each by two stunted shafts of red Gloucester granite, the capitals of which are enriched by poppies and oak leaves, this decoration being carried around the monument on the same level in a band or string course.

These arches form a canopy, square in plan, from which the structure diminishes by a series of mouldings to the base of a grouped quadripartite shaft of polished red granite. Its capital, which is decorated with oak leaves, bears on its abacus a group setting forth the story of "the good Samaritan," the type of the relief of suffering.

The inscriptions and bas-reliefs on the four sides are successively as follows:—

I.

To commemorate
the discovery
that the inhalation of ether
causes insensibility to pain.
First proved to the world
at the Mass. General Hospital
in Boston,
October, A.D. MDCCCXVI.

The bas-relief accompanying this represents a surgical operation in a civic hospital, the patient being under the influence of ether.

II.

Neither shall there be any more pain.

[Revelation.

With an allegorical bas-relief of the Angel of Mercy descending to relieve suffering humanity.

III.

In gratitude
for the relief
of human suffering
by the inhaling of ether,
a citizen of Boston
has erected
this monument,
A.D. MDCCCLXVII.

With a bas-relief of a field hospital, with a wounded soldier in the hands of the surgeons.

IV.

This also cometh forth
from the Lord of Hosts,
which is wonderful
in council
and excellent
in working.

[Isaiah.

The bas-relief accompanying this inscription is an allegory of the triumph of science.

B.

MORTALITY REPORT FOR THE MONTH OF SEPTEMBER:—

The monthly report for September showed 133 deaths from cholera infantum, 78 from convulsions, 44 from diarrhœa, 22 from dysentery, 29 from typhoid fever, 15 from hydrocephalus, 39 from phthisis pulmonalis, 27 from tabes mesenterica, 30 from teething, and 10 from teething and diarrhœa. The total mortality was 736; 382 males, 354 females; 108 married, 628 single; 9 colored, 727 white. In September of last year the deaths were 507, an increase over this year of 229. In August last the total was 944, a decrease of 208.

The highest mortality was of children under one year, 277; one year to three, 218; between 20 and 30 years, 49.

The nativities were: Africa, 1; Austria, 1; Bermuda, 1; Bohemia, 7; Canada, 6; Chicago, native, 158; foreign, 28; United States, other parts, 107; Denmark, 1; England, 9;

France, 1; Germany, 70; Holland, 4; Ireland, 52; Italy, 3; Norway, 10; New Brunswick, 1; Scotland, 1; Sweden, 17; Wales, 1; unknown, 1.

The highest percentage of deaths in the wards was in the Seventh, being 112, one in 195 of population; the lowest in the First ward, being 9, or one in 1332. There was 1 death in Bridewell; County Hospital, 12; Home for the Friendless, 44; Half-Orphan Asylum, 1; Hospital of the Alexian Brothers, 1; Marine Hospital, 2; Mercy Hospital, 3; Protestant Orphan Asylum, 1; Immigrants, 19.

The deaths in the several wards during September were: First, 9; Second, 25; Third, 27; Fourth, 36; Fifth, 42; Sixth, 46; Seventh, 112; Eighth, 48; Ninth, 34; Tenth, 38; Eleventh, 33; Twelfth, 74; Thirteenth, 44; Fourteenth, 43; Fifteenth, 64; Sixteenth, 26.

THE DOG NUISANCE.

The inspectors' reports showed that during the month, 963 dead dogs had been removed in the South Division; 1615 in the West Division; and 465 in the North Division; total, 3043.

THE OPHTHALMOSCOPE IN DISEASES OF THE NERVOUS SYSTEM.—M. Bouchut has just sent to the Academy of Sciences, of Paris, the results of his more recent researches on the utility of the ophthalmoscope in diagnosing diseases of the cerebro-spinal system. Through the novelty and interest of the subject we are induced to sum up briefly the more striking features of this memoir. Most of the diseases of the membrane of the brain and spinal cord being accompanied by optic neuritis, neuro-retinitis, inflammation of the choroidal membrane and papillary atrophy, it can be understood how the ophthalmoscope enables us to detect in the interior of the eye disorders of circulation, of secretion, and of nutrition, which indicates an organic disease of the cerebro-spinal system. It is through the anatomical and physiological connections of the eye with the spinal cord and brain, that we may explain the law of coincidence of optic neuritis with organic injuries of the nervous system. Each time that some violent impediment to cerebral circulation is brought on by the existence of some injury of the cerebrum and of the spinal cord, papillary and retinal hyperæmia is the consequence.

When it is the brain which is the seat of acute or chronic phlegmasia, the inflammation may extend to the eye by following the course of the optic nerve. On the other hand, diseases of the anterior columns of the cord may, through the anastomosis of the parts with the great sympathetic nerve in the situation of the two first dorsal pairs, produce in the eye various phenomena of papillary hyperæmia, which brings on, at a subsequent period, wasting of the optic nerve.

These facts show through what mechanism diseases of the nervous system stamp themselves on the eye so as to be detected by the ophthalmoscope. Other results are mentioned by the author, which may be of use whilst determining the diagnosis. Thus the optic neuritis and neuro-retinitis, produced by the acute or chronic diseases of the nervous system, are generally observed in both eyes; in cases of injury of the brain, or its membrane, optic neuritis is habitually more marked in the eye corresponding to the hemisphere which is more seriously altered; changes of the optic nerve and retina, complicated by disorders of sensibility, intellect, and movement, invariably indicate an organic disease of the encephalon. It may be added, that the alterations of the optic nerve and the retina should not be isolated from the other symptoms of the morbid condition. When considered thus, detection of their presence gives to the diagnosis an undeniable certitude.

The author concludes by naming the diseases of the nervous system in which optic neuritis and neuro-retinitis are observed, and he draws up the following list:—Phlebitis of the sinuses, acute or chronic meningitis, chronic encephalitis, cerebral hemorrhage, tumors of the brain, contusion and compression of the brain, chronic hydrocephalus, abscess of the brain, acute myelitis, locomotor ataxy, essential or idiopathic contraction, and certain cases of epilepsy, of paralysis, or of neurosis, associated with an organic lesion of the nervous substance.—*Lancet*.

NASAL THERAPEUTICS.—At a recent meeting of the Liverpool Medical Institution, reported in the *British Medical Journal*, Dr. Banks, one of the members, made the following extremely practical remarks on the Application of Remedies to the Nostrils and Larynx:—

“Weber, of Leipzig, discovered fifty years ago that when a column of water was passed along one nostril, when it touches the soft palate, it causes it to rise so as to shut off the nasal from the pharyngeal cavity, so that the fluid is compelled to return through the other nostril. Weber, of Halle, first put the

principle into practice; and in 1864, Dr. Thudichum invented an instrument, and published some papers on the subject. The points to be attended to in using the instrument were the following: 1, the nozzle should fit the nostril accurately; 2, in children and nervous people, the full stream should not be turned on at once; it should be allowed to pass in gently at first, and then gradually increase in volume and force; 3, the current should be reversed occasionally. Cold water is irritating; and, therefore, tepid water, or a solution of an ounce of salt in a pint of water, may be used, followed by a deodorizer, as Condy's fluid, liquor carbonis detergens, or especially carbolic acid, and afterwards a stimulant astringent, as alum (one drachm to the pint), sulphate of zinc or copper (from ten to thirty grains to the pint), etc. The solution should not be too strong at first. The instrument was also useful in some surgical accidents, such as a foreign body in the nostril and severe epistaxis, when some dilute hæmostatic should be employed. Dr. Skinner had been practically making use of this principle before Dr. Thudichum's paper appeared, the instrument employed being a Higginson's syringe. The author had found Mr. Bryant's mode of treating nasal polypi, by blowing tannin into the nostrils through a quill, very satisfactory in some cases, especially soft and gelatinous polypi. Another troublesome affection—a chronically swollen and thickened condition of the nasal and palatine mucous membrane—was benefited by the administration of iodide or bromide of potassium; but local astringents were also useful, and were best applied by means of the spray producer. The best applications were, glycerine of tannic acid (one scruple to one ounce of water), or a solution of iodine, with a small quantity of carbolic acid. Speaking of affections of the throat, the author observed, that of the various instruments devised to bring remedies into contact with the air-passages, the spray producer was the best. Its use was very great in chronic laryngeal affections, and also in many acute affections, as putrid sore throat and scarlatinal cynanche, diphtheria. The spray producer could not be employed with very potent remedies, such as strong solution of nitrate of silver. A piece of whalebone, bent at an obtuse angle near the end, and having a brush (better than a sponge) attached to it, was the best instrument for applying these. Care and dexterity are requisite in using it."—*Med. and Surg. Reporter*.

THE USE OF PEPSINE IN INFANTILE DIARRHŒA.—James S. Hawley, M.D., of Greenpoint, L. I., advocates the use of *American*

pepsine in the diarrhoea of infants, for the purpose of converting the ingesta into nutriment. The food going through the intestinal canal in an undigested form, becomes an irritant. And this is not all: the food does not always remain a simple, foreign substance, but undergoes putrefaction, decomposition adding new and more active sources of disease.

The indications in this disease are as follows:—*First*, to remove all sources of irritation from the quality of the ingesta; *Secondly*, allaying irritation by sedatives; *Thirdly*, artificial digestion by the administration of *pepsine*.

M. Corvisart and M. Barthez, of Paris, have made use of *pepsine*, both in adult and infantile cases, with success.

Dr. H. has been in the habit of administering *pepsine* in the diarrhoea of fed and teething infants for several years, with favorable results.

Cases are detailed by him, where the following simple prescription terminated the disease:

R. Am. *Pepsine*, Subnit. Bismuth, āā gr. v. every three or four hours.

R. Am. *Pepsine*, Subnit. Bismuth, āā ʒj.; Pulv. *Opii*, gr. j.; divided into twelve powders, and one given every two to four hours, according to circumstances.

In conclusion, he commends *pepsine* in the treatment of infantile diarrhoea, especially during the period of dentition. It has no noxious or perturbing qualities, and to some extent has borne the test of experience.

DIVISION AND EXCISION OF NERVES.—Some months since, a case occurred in Paris, which attracted much attention, and caused considerable speculation. A woman received a wound just above the wrist, which completely divided the median nerve, notwithstanding which the peripheral end of the nerve was painful when touched, and the fingers retained the property of feeling. Some observers sought to explain the retention of sensibility by supposing an anomalous distribution of nerves, but Professor Richet believed the painful impression produced by touching the peripheral extremity of the nerve to be due to the presence of *nervi nervorum*, lately discovered by M. Sappey; and that the retention of sensibility by the fingers was in consequence of the corpuscles of tact being supplied by filaments from the radial and ulnar nerves, as well as the median, as demonstrated by Cruveilhier and Robin. In consequence of the interest manifested in the above case, Dr. J. F. Miner has been induced to record in the June number of the *Buffalo Med-*

ical and Surgical Journal, three others of a similar nature, which have occurred in his practice. A man received a gunshot wound of the arm, the ball passing directly through the median nerve. False ankylosis eventually ensued, and the pain from the receipt of the injury was intense and indescribable. Twenty-two weeks from the time of injury three inches of the nerve, which was found closely involved in the cicatrix, were removed, the pain ceasing immediately. *Sensation* was at no time lost, but was at first somewhat diminished along the anterior portion of the forearm and hand.—The second case was one of cystic tumor of the arm, which had existed five years, latterly becoming exceedingly painful. It so involved the musculo-spiral nerve that the removal of the tumor necessitated the removal of a portion of the nerve. This was followed by loss of motion, and in great degree of sensation, of all the parts supplied by the nerve. In the third case, a wound dividing all the flexor tendons of the middle, ring, and little fingers, the ulnar artery and nerve, *sensation* was almost entirely lost immediately after the injury, but was afterwards perfectly regained, the wound healing rapidly and the nerve, of course, uniting.

PRESENT STATE OF HEALTH IN LONDON.—It is stated that (*Lancet*, July 11, 1868) there is a rapid and serious increase of diarrhœa in London, and other large towns. In the week ending June 6th, the deaths from this cause in London were only 27. In the four following weeks they were 31, 66, 171, 286. In the earlier weeks of the present unusual heat, according to Dr. Glover, the most noticeable effect upon health was a degree of asthenia, with more or less discomfort in the stomach and bowels. Diarrhœa had not shown itself to any serious extent. The mortality of London and the large towns was very low. It, has, however, gone rapidly up. The mortality, instead of being 19 per 1000, was last week at the rate of 25 in London, 26 in Liverpool. Of the 577 deaths from zymotic diseases in London, 286 were from diarrhœa, 19 from "cholera," or choleraic diarrhœa. Of the 286 persons, 230 were children under one year of age. It is probable that we have not seen the full development of this complaint, unless, indeed, we have an unlikely change in the weather. The meteorological character of the season is such as to throw light on the causation of diarrhœa. A very high temperature and extreme drought are conditions that generate this complaint on an epidemic scale. The fruit theory of its causation is not tenable: witness the age of its principal victims.

HEALTH OF LONDON.—During the last week in July, the mean temperature of the air was 69.2° , or 7.6° above the average of the corresponding week in 50 years, according to Mr. Glaisher's observations. If anything, there was a little less heat than in the week preceding, but the difference was not sufficient to avert the unfavorable influence which great heat combined with continued drought always exercises on the populations of great cities. The registered deaths amounted to 1885 in the week, or more by 243 than were recorded the week before, and 310 more than the weekly average of the season. The deaths from diarrhoea have risen from 340 to 442, and by the more serious choleraic form of disease from 37 to 58. It is to be noticed that the mortality from diarrhoea, unlike that from true cholera, is pretty equally diffused through the various water-fields of London. Zymotic disease caused 800 deaths, or 43 per cent. of the total mortality, the corrected average being only 631 deaths from this class of causes. Of the 58 deaths returned under the head of "cholera," 38 were of children under 1 year of age, 8 aged 1 year, and 4 between 2 and 5 years, leaving 7 cases of adult death resulting from attacks of cholera not exceeding thirty hours' duration.—*Lancet*, August 1, 1868.

PERSONAL APPEARANCE OF VIRCHOW.—A correspondent of the *Cincinnati Lancet and Observer*, writing from Berlin, gives the following description of the great pathologist: Instead of the commanding or inspiring physique we had anticipated, we beheld a small man, with a short, quick, determined step, giving a nervous twitch to his whole body in progression; a face stamped strongly with the national characteristics, but chastened by hard study; a forehead expanded in every direction, with the lines that deep thought alone produces; a peculiar glance, such as you have often noticed from eyes accustomed to microscopic research, lending rather a furtive expression which is perhaps increased by the spectacles which he constantly wears; delivery slow, distinct, the purest German, no jingle of rhetoric, scarcely a gesture; merely a dictum which the lecturer deposes as law, without being at all dogmatical, and which is law.—The writer adds that he lectures daily from five to seven hours, on medicine "and politics," and that he is an earnest and powerful advocate of the liberal party, and the chief of the opposition to the divine right of kings.

TOBACCO A CAUSE OF BALD HEADS AND GRAY HAIR.—Dr.

D. B. Hoffman states (*Pacific Medical and Surgical Journal*, June, 1868) that a large proportion of the young men in California are bald-headed and have gray hair, which is not the case with females. This he is inclined to attribute to the excessive use of tobacco by the men. In support of this view he relates the case of one of his patients, under forty years of age, who had been in the habit of using tobacco to excess, and had been for 5 or 6 years both bald-headed and gray-haired. With great resolution he abandoned the use of tobacco: the result was that he entirely recovered his health, which had been bad; his whole head had become covered with a luxuriant growth of fine black hair, and he lost the sallow, beeswax hue of skin so common in those who use tobacco to excess.

DEATH FROM CHLOROFORM.—Mrs. Elizabeth Hammon, aged 35, mother of three children, apparently a healthy woman, went to a dentist (Dr. McDowell) April 16, 1868, for the purpose of having some teeth extracted. Thinking she could not endure the pain, she requested the doctor to administer chloroform; and, as he had given it to her once before (about six months since) without any bad effect, he consented to administer it again, and, pouring about two drachms of chloroform upon a sponge, held it a short distance from her face. After she had made three or four inspirations her respiration ceased; he felt for the pulse and found she had none. Artificial respiration was commenced at once, and stimulating applications applied over the heart and to the extremities, but to no effect. She made but two or three efforts at inspiration after he first noticed something was wrong. An autopsy could not be obtained.

THE EARLY HISTORY OF SYPHILIS IN CHINA.—Dr. Geo. Thin, of Shanghai, China, contributes to the *Edinburgh Medical Journal* some interesting historical notes on this subject. He was assured by many Chinese scholars that syphilis has been known to exist in China for many centuries, and he therefore undertook, with the assistance of a learned native antiquary, to hunt up the records. He finds that in the seventh century the venereal chancre was described under a specific name, which places its nature beyond a doubt, and that from this time onward there are various allusions to it, although in modern times the more ancient notices have in a great measure been overlooked, partly from change of nomenclature, and partly from the fact that the works in which the notices occur are not likely to come before the general practitioner. Even anterior to the

Christian era, there are many traditions and vague references, which are generally accepted as indicating syphilitic diseases. The earliest of these is to be found in a collection of odes made by Confucius five hundred years B.C.—*New York Med. Jour.*

In consideration of the numerous victims of homœopathic treatment, a decree of the Emperor of Russia prohibits the practice of homœopathy in the entire territories of Russian America.—*Union Medicale.*

MEDICAL FACULTY OF PARIS.—M. Denonvilliers, Professor of Operative Medicine, has been transferred to the Chair of Clinical Surgery in this faculty, in place of M. Jarjavay, lately deceased.

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P. P. GILMARTIN, M.D., Adjunct Professor of Obstetrics and Lecturer on Medical Jurisprudence.

H. O. WALKER, M.D., Demonstrator of Anatomy.

THE REGULAR TERM

Will commence on Tuesday, February 2d, and continue until June 5th. The fees for the regular course are as follows: Lecture fees, \$50; Matriculation fee, \$5; Dissecting Ticket, \$5; Hospital Tickets (for one year), \$6; Graduation fee, \$25.

THE PRELIMINARY TERM

Will begin on Tuesday, November 3d, and continue until the commencement of the regular term. This course will be principally clinical. A fee of \$15 will be charged for this course, but will be credited to the student on payment of the fees of the regular term. For further particulars apply to

THEO. A. MCGRAW, M.D., Secretary,

491 Jefferson Avenue.

CHICAGO MEDICAL COLLEGE.

The regular Annual Lecture Term in this Institution will commence on the first Monday in October, and continue until the fourth Tuesday in March following. Clinical Lectures *daily* throughout the term.

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JULIEN S. SHERMAN, M.D.,
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Assistant to the Demonstrator of Anatomy.

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For the Winter Term, admitting to all the Lectures in the College,	\$50.00
Graduation Fee,	20.00
Matriculation Fee,	5.00
Dissecting Ticket,	5.00
Hospital Ticket,	6.00

The Summer Reading and Clinical Term commences on the first Monday in April, and continues until the first Monday in July; and is free to all matriculated Students of the College. Boarding, \$3.50 to \$4.50 per week. For further information, address

E. ANDREWS, M.D., Sec'y of the Faculty.